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HENRY A. WALLACE, *Secretary*
WEATHER BUREAU - - F. W. Reichelderfer, *Chief*

MONTHLY WEATHER REVIEW

APRIL 1945

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MONTHLY WEATHER REVIEW

Editor, Temporarily Vacant

VOL. 73, No. 4
W. B. No. 1433

APRIL 1945

CLOSED JUNE 5, 1945
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METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR APRIL 1945

AEROLOGICAL OBSERVATIONS

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during April 1945*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Albany, N. Y. (86 m.)				Albuquerque, N. Mex. (1,620 m.)				Apalachicola, Fla. (5 m.)				Atlanta, Ga. (300 m.)				Big Spring, Tex. (774 m.)				Bismarck, N. Dak. (505 m.)				Boise, Idaho (868 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,007	8.9	73	28	833	12.8	27	30	1,017	20.4	83	30	983	16.3	71	30	924	16.3	45	29	955	2.6	65	28	915	8.8	47
500	30	958	7.9	65					30	961	19.6	67	30	961	17.0	63												
1,000	30	901	5.4	67					30	907	17.4	58	30	906	14.5	63	30	900	16.0	41	29	898	2.7	57	28	901	9.1	42
1,500	30	848	3.6	66					30	855	14.5	60	30	854	12.0	59	30	848	13.7	38	29	844	−0.6	61	28	848	6.0	43
2,000	30	796	1.1	65	28	796	11.2	25	30	805	11.7	52	30	804	9.0	55	30	799	10.8	35	29	792	−3.4	62	28	797	1.8	48
2,500	30	748	−1.4	62	28	750	7.6	28	30	758	9.1	42	30	757	6.6	46	30	752	7.5	33	29	744	−6.5	63	28	749	−2.4	53
3,000	30	702	−3.8	60	28	705	3.5	32	30	714	6.7	37	30	712	4.7	37	30	707	4.6	29	29	697	−9.5	60	28	703	−6.4	59
4,000	30	618	−8.9	52	28	622	−4.6	41	30	631	1.5	----	29	629	−1.4	34	30	625	−2.5	30	28	612	−16.3	63	27	617	−13.6	56
5,000	30	542	−15.7	48	28	547	−12.4	49	30	556	−5.1	----	29	554	−7.8	----	30	550	−9.8	32	28	534	−23.0	----	27	541	−20.0	----
6,000	30	474	−22.0	----	27	479	−19.5	----	30	489	−12.1	----	28	486	−15.1	----	30	482	−17.1	33	28	466	−29.8	----	27	471	−26.7	----
7,000	30	413	−28.7	----	26	418	−27.2	----	30	428	−18.9	----	28	425	−22.4	----	30	421	−24.2	----	28	404	−36.6	----	27	410	−32.9	----
8,000	30	359	−35.6	----	26	362	−34.7	----	30	374	−26.1	----	28	370	−29.9	----	28	367	−31.7	----	27	349	−44.0	----	26	355	−38.9	----
9,000	30	310	−42.3	----	26	313	−42.1	----	29	325	−34.0	----	27	321	−37.1	----	28	317	−39.3	----	24	299	−50.6	----	25	306	−44.9	----
10,000	30	267	−48.7	----	26	270	−48.7	----	28	281	−41.8	----	27	277	−44.4	----	28	274	−46.5	----	23	255	−53.3	----	24	263	−50.7	----
11,000	29	229	−54.1	----	24	232	−53.9	----	28	242	−49.7	----	26	238	−51.6	----	28	235	−53.1	----	22	220	−53.4	----	20	225	−56.2	----
12,000	25	195	−56.5	----	22	198	−56.0	----	27	207	−56.3	----	26	204	−57.2	----	27	201	−58.0	----	18	188	−52.1	----	17	192	−56.9	----
13,000	25	167	−57.5	----	17	169	−57.0	----	24	177	−60.3	----	23	174	−60.1	----	25	171	−60.0	----	16	161	−51.7	----	15	163	−54.8	----
14,000	18	142	−56.6	----	12	145	−58.4	----	20	151	−62.7	----	20	148	−61.9	----	16	145	−60.6	----	15	138	−51.6	----	11	140	−53.5	----
15,000	13	121	−57.9	----					14	128	−66.4	----	14	126	−63.9	----	8	124	−63.5	----	11	118	−51.5	----				
16,000	5	103	−57.1	----					7	108	−68.1	----					5	105	−66.9	----	11	101	−52.2	----				

Altitude (meters) m. s. l.	Brownsville, Tex. (6 m.)				Buffalo, N. Y. (221 m.)				Caribou, Maine (193 m.)				Charleston, S. C. (14 m.)				Denver, Colo. (1,616 m.)				Dodge City, Kans. (787 m.)				El Paso, Tex. (1,195 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,011	22.2	84	29	990	7.6	72	30	992	4.6	73	30	1,017	18.3	86	29	835	4.7	63	30	922	9.0	69	30	878	18.4	24
500	30	956	20.4	72	29	958	7.6	63	30	955	4.4	66	30	961	18.5	70												
1,000	30	901	19.1	57	29	901	5.9	59	30	898	1.8	66	30	907	15.6	66					30	899	9.6	61				
1,500	30	850	17.5	45	29	847	3.2	56	30	844	−1.1	72	30	855	12.7	64					30	846	7.4	56	30	847	17.3	23
2,000	30	801	15.8	36	29	796	−0.6	55	30	792	−2.9	70	30	805	10.0	59	29	796	3.4	58	30	796	5.2	51	30	798	13.5	24
2,500	30	756	13.5	32	29	748	−1.9	52	30	744	−4.9	67	30	758	7.4	48	29	748	0.1	58	30	749	2.3	50	30	752	9.4	26
3,000	30	711	10.2	30	29	702	−4.7	51	30	697	−7.1	64	30	713	4.9	42	29	702	−3.3	58	30	703	−0.6	52	30	708	5.4	28
4,000	30	630	3.0	29	29	617	−10.3	48	30	613	−12.4	60	29	630	−1.0	35	29	618	−9.8	58	29	620	−6.8	49	30	625	−1.5	32
5,000	29	556	−4.4	----	28	541	−16.5	----	29	537	−18.5	58	29	555	−7.2	----	29	542	−16.6	58	29	544	−13.9	42	30	550	−8.7	----
6,000	28	489	−12.0	----	28	473	−23.4	----	28	468	−25.3	----	27	487	−14.0	----	29	473	−23.7	----	29	476	−20.8	45	30	483	−16.1	----
7,000	28	428	−19.4	----	28	412	−30.3	----	28	407	−32.0	----	27	427	−21.2	----	28	412	−31.1	----	29	416	−27.6	----	29	422	−23.5	----
8,000	28	374	−27.1	----	26	358	−37.3	----	28	352	−39.4	----	27	372	−28.9	----	28	357	−38.9	----	29	361	−35.0	----	29	368	−31.4	----
9,000	27	324	−34.8	----	24	308	−44.8	----	27	304	−46.1	----	26	322	−36.6	----	28	308	−46.3	----	29	312	−42.2	----	29	319	−38.8	----
10,000	27	281	−42.3	----	22	265	−50.6	----	26	262	−51.8	----	26	279	−44.2	----	27	264	−51.7	----	29	268	−48.8	----	29	275	−46.1	----
11,000	26	241	−50.1	----	21	227	−55.7	----	24	224	−54.6	----	21	239	−51.8	----	25	227	−55.6	----	27	230	−54.2	----	29	236	−52.6	----
12,000	22	207	−57.1	----	18	194	−58.2	----	20	191	−54.1	----	15	205	−58.6	----	21	193	−57.2	----	26	196	−56.3	----	26	202	−57.3	----
13,000	17	176	−61.7	----	13	165	−58.5	----	13	163	−51.5	----	8	174	−61.0	----	16	165	−54.2	----	26	167	−56.0	----	25	172	−60.2	----
14,000	9	149	−64.4	----	11	140	−58.9	----	8	139	−50.7	----					12	141	−55.6	----	22	143	−56.2	----	16	147	−60.7	----
15,000					7	120	−57.8	----	5	119	−51.9	----					10	121	−56.9	----	11	122	−57.4	----	9	125	−62.2	----
16,000																	5	103	−58.2	----	7	105	−58.8	----				

Altitude (meters) m. s. l.	Ely, Nev. (1,908 m.)				Glasgow, Mont. (648 m.)				Grand Junction, Colo. (1,414 m.)				Great Falls, Mont. (1,128 m.)				Greensboro, N. C. (273 m.)				Hatteras, N. C. (3 m.)				Havana, Cuba (51 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	807	4.2	62	30	938	4.7	57	30	855	9.6	41	30	885	3.3	60	30	987	14.0	76	28	1,019	16.2	87				
500																	30	961	14.5	66	28	961	16.0	75				
1,000					30	898	3.3	53									30	906	12.0	66	28	907	13.4	70				
1,500					30	844	−0.4	57	30	846	9.4	40	30	845	1.4	54	30	852	9.0	65	28	854	10.8	63				
2,000	30	798	4.4	55	30	792	−4.3	64	30	796	6.2	42	30	794	−2.4	60	30	802	6.5	56	28	804	8.2	57				
2,500	30	751	1.2	51	30	744	−8.2	71	30	749	1.9	48	30	745	−6.2	66	30	755	4.0	51	28	757	6.0	51				
3,000	30	705	−2.8	58	30	697	−11.7	75	30	703	−2.3	56	30	699	−10.0	70	30	710	1.2	44	27	711	3.1	44				
4,000	30	620	−10.5	64	29	611	−17.9	75	30	619	−9.8	54	30	613	−17.0	68	30	626	−4.2	35	27	628	−2.4	36				
5,000	30	544	−17.1	----	29	533	−24.6	----	30	543	−16.7	60	30	535	−24.1	----	30	551	−10.5	----	26	553	−8.3	----				
6,000	30	475	−23.6	----	29	464	−31.7	----	30	474	−23.7	----	30	466	−31.5	----	30	483	−17.7	----	25	486	−14.9	----				
7,000	30	414	−30.9	----	27	402	−39.0	----	30	412	−30.7	----	29	404	−38.6	----	30	422	−25.1	----	25	425	−22.0	----				
8,000	29	358	−38.4	----	27	346	−46.0	----	29	358	−38.1	----	29	348	−45.0	----	30	366	−32.8	----	25	370	−29.8	----				
9,000	27	310	−45.1	----	27	297	−51.3	----	26	308	−44.4	----	27	299	−50.4	----	29	317	−40.5	----	25	321	−37.6	----				
10,000	25	267	−52.4	----	26	254	−53.2	----	22	264	−50.4	----	26	256	−53.0	----	28	273	−47.9	----	25	277	−45.7	----				
11,000	24	228	−57.8	----	26	218	−52.6	----	18	227	−54.6	----	22	220	−53.1	----	28	234	−55.1	----	25	237	−53.6	----				
12,000	21	194	−62.1	----	26	186	−51.7	----	17	194	−56.3	----	18	187	−51.6	----	26	200	−60.4	----	19	203	−59.5	----				
13,000	15	165	−61.6	----	19	160	−50.9	----	11	166	−54.8	----	16	160	−51.0	----	22	170	−61.7	----	15	173	−61.6	----				
14,000	12	140	−60.8	----	14	137	−51.6	----	10	142	−55.3	----	13	138	−52.4	----	19	145	−62.9	----	7	149	−63.6	----				
15,000					11	118	−52.1	----	8	121	−56.9	----	11	118	−53.1	----	10	124	−65.1	----								
16,000					7	101	−51.8	----					5	100	−52.9	----	5	105	−66.1	----								
17,000					5	87	−52.5	----																				

See footnotes at end of table.

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TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during April 1945*—Continued

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL—Continued

Altitude (meters) m. s. l.	Huntington, W. Va. (172 m.)				International Falls, Minn. (343 m.)				Jackson, Miss. (97 m.)				Joliet, Ill. (178 m.)				Lake Charles, La. (5 m.)				Little Rock, Ark. (79 m.)				Louisville, Ky. (165 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	998	11.2	79	30	973	1.0	71	30	1,004	17.7	77	29	995	7.9	77	29	1,014	19.4	86	30	1,006	17.0	77	30	998	12.5	73
500	30	960	13.3	66	30	954	0.6	68	30	958	17.5	66	29	957	8.3	67	29	958	18.0	70	30	957	15.9	66	30	958	13.5	62
1,000	30	904	10.8	63	30	896	−2.3	71	30	904	14.6	64	29	901	6.8	67	29	904	15.3	64	30	902	12.7	66	30	903	10.7	59
1,500	30	851	7.5	65	30	841	−4.9	75	30	852	12.2	54	29	847	4.4	65	29	852	13.1	57	30	850	9.9	64	30	851	7.6	58
2,000	30	801	4.8	55	30	789	−6.7	73	30	802	10.0	50	29	796	1.9	62	29	802	11.1	48	30	800	7.6	59	30	800	4.9	51
2,500	30	753	2.0	54	30	740	−8.9	68	30	755	8.0	43	29	749	−0.2	53	29	756	9.1	41	30	753	5.4	50	30	753	2.8	43
3,000	30	707	−0.2	47	30	693	−11.4	63	30	710	5.6	40	29	703	−3.1	54	29	711	6.7	36	30	708	2.9	42	30	707	0.3	39
4,000	29	624	−6.0	45	30	608	−17.1	60	29	628	−0.4	36	29	619	−8.7	45	27	629	0.7	----	30	625	−2.4	39	29	624	−5.7	38
5,000	29	548	−11.9	45	30	531	−23.4	----	28	554	−7.1	36	29	543	−15.1	45	27	554	−6.0	----	30	550	−8.9	39	28	548	−11.7	----
6,000	29	480	−18.2	----	30	463	−29.8	----	28	486	−14.0	----	29	475	−22.0	----	27	487	−13.4	----	30	483	−16.4	46	27	481	−18.3	----
7,000	29	419	−25.3	----	30	401	−37.1	----	28	426	−21.5	----	28	414	−28.9	----	27	426	−20.8	----	30	422	−23.5	----	27	420	−25.3	----
8,000	28	365	−32.8	----	30	346	−43.4	----	28	371	−29.1	----	28	359	−36.0	----	27	371	−28.7	----	30	367	−31.0	----	26	365	−32.7	----
9,000	28	316	−40.2	----	28	298	−48.8	----	28	321	−36.6	----	26	310	−43.4	----	27	322	−36.9	----	30	318	−38.6	----	23	316	−40.4	----
10,000	27	272	−47.2	----	25	256	−51.8	----	28	277	−44.2	----	25	267	−50.2	----	26	279	−44.3	----	30	274	−46.2	----	20	273	−47.7	----
11,000	26	233	−54.2	----	23	219	−52.4	----	27	239	−51.7	----	21	228	−55.8	----	26	240	−52.0	----	29	236	−53.2	----	20	235	−54.9	----
12,000	26	199	−58.4	----	21	187	−51.1	----	26	204	−57.8	----	17	194	−57.2	----	25	205	−58.6	----	29	201	−58.5	----	15	201	−59.2	----
13,000	23	169	−59.3	----	18	160	−50.1	----	25	174	−61.4	----	11	166	−55.8	----	19	174	−62.6	----	23	171	−60.1	----	12	171	−60.6	----
14,000	22	144	−59.4	----	16	137	−51.4	----	20	148	−62.4	----	8	141	−55.3	----	14	148	−64.4	----	18	146	−61.0	----	7	147	−63.9	----
15,000	14	124	−61.1	----	11	118	−51.2	----	15	126	−64.2	----	----	----	----	----	9	126	−66.0	----	13	124	−63.1	----	----	----	----	----
16,000	6	106	−62.9	----	5	101	−51.3	----	7	106	−65.2	----	----	----	----	----	----	----	----	----	5	107	−64.2	----	----	----	----	----

Altitude (meters) m. s. l.	Mazatlan, Mexico (80 m.)				Medford, Oreg. (409 m.)				Merida, Mexico (27 m.)				Miami, Fla. (4 m.)				Nashville, Tenn. (180 m.)				North Platte, Nebr. (849 m.)				Oakland, Calif. (2 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,004	19.7	80	30	972	12.2	54	29	1,008	29.1	59	30	1,018	23.4	80	30	996	15.8	69	30	915	6.6	69	30	1,017	13.5	67
500	30	957	22.7	22	30	962	11.8	53	29	956	26.1	56	30	962	21.1	78	30	959	15.8	56	----	----	----	----	30	959	13.0	50
1,000	30	904	22.2	----	30	906	8.5	57	29	903	23.6	54	30	908	18.0	72	30	904	12.6	56	30	899	7.0	60	30	903	11.9	37
1,500	30	853	19.8	----	30	852	4.6	64	29	853	20.3	57	30	856	15.4	66	30	852	9.2	54	30	845	4.4	59	30	851	9.3	32
2,000	30	804	16.7	----	30	801	0.8	70	29	804	16.8	57	30	806	12.8	53	30	801	6.9	46	30	794	1.5	59	30	800	6.0	31
2,500	30	758	13.5	----	30	753	−2.4	63	29	758	13.6	51	30	760	10.2	47	29	754	4.8	40	30	747	−1.0	62	30	753	2.9	29
3,000	30	714	10.3	----	30	706	−5.0	57	29	714	11.0	38	30	715	7.6	40	29	709	2.4	----	30	701	−4.2	63	30	707	−0.2	29
4,000	30	632	3.4	----	29	621	−10.0	49	29	633	6.0	----	29	633	2.2	37	28	626	−3.3	----	30	616	−9.9	64	28	624	−5.8	----
5,000	29	558	−3.7	----	28	546	−15.1	----	29	560	−0.7	----	29	558	−3.5	----	27	550	−9.8	----	29	541	−16.3	58	28	548	−12.0	----
6,000	29	490	−10.9	----	26	477	−21.1	----	26	493	−7.6	----	29	491	−9.6	----	27	483	−16.6	----	29	473	−23.5	----	28	480	−18.7	----
7,000	29	430	−18.5	----	26	416	−28.5	----	26	433	−14.7	----	29	431	−16.5	----	27	422	−24.0	----	29	411	−31.0	----	28	419	−25.8	----
8,000	29	375	−26.2	----	24	361	−36.5	----	26	378	−22.6	----	28	376	−24.0	----	27	367	−31.5	----	29	356	−38.3	----	27	365	−33.0	----
9,000	28	326	−34.2	----	22	312	−44.6	----	26	329	−30.3	----	28	328	−31.7	----	27	318	−39.1	----	29	307	−45.5	----	26	316	−40.8	----
10,000	26	282	−42.0	----	21	268	−52.1	----	26	286	−37.9	----	28	284	−39.4	----	26	274	−46.6	----	28	264	−51.4	----	26	272	−48.7	----
11,000	12	243	−49.1	----	20	229	−58.5	----	26	246	−45.5	----	27	244	−47.4	----	26	235	−54.1	----	26	226	−55.8	----	24	233	−55.3	----
12,000	----	----	----	----	16	195	−60.2	----	24	212	−52.5	----	26	210	−54.3	----	22	202	−59.3	----	23	193	−56.2	----	23	199	−60.1	----
13,000	----	----	----	----	11	165	−57.8	----	20	181	−58.9	----	25	179	−59.5	----	21	172	−61.5	----	20	165	−55.3	----	19	170	−60.4	----
14,000	----	----	----	----	9	141	−58.6	----	10	154	−65.3	----	22	152	−64.3	----	17	146	−61.6	----	18	141	−54.7	----	18	144	−60.5	----
15,000	----	----	----	----	7	120	−59.7	----	----	----	----	----	16	129	−68.8	----	7	124	−65.4	----	9	121	−55.1	----	12	123	−61.0	----
16,000	----	----	----	----	----	----	----	----	----	----	----	----	8	110	−72.3	----	----	----	----	----	7	103	−56.7	----	5	105	−61.9	----

Altitude (meters) m. s. l.	Ogden, Utah (1,355 m.)				Oklahoma City, Okla. (391 m.)				Omaha, Nebr. (308 m.)				Phoenix, Ariz. (339 m.)				Pittsburgh, Pa. (382 m.)				Portland, Maine (20 m.)				Rapid City, S. Dak. (981 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	29	862	6.8	51	30	968	13.2	80	29	978	10.6	65	30	971	19.6	25	30	973	10.7	66	30	1014	6.8	79	30	901	4.4	60
500	----	----	----	----	30	955	13.2	75	29	956	10.0	61	30	953	21.5	18	30	960	10.7	64	30	957	7.8	65	----	----	----	----
1,000	----	----	----	----	30	900	10.7	72	29	900	6.8	60	30	898	18.5	17	30	903	8.7	62	30	900	5.6	61	30	899	4.5	59
1,500	29	847	6.9	47	30	848	9.0	66	29	846	4.0	64	30	847	14.3	19	30	850	5.9	60	30	847	3.2	65	30	846	3.0	56
2,000	29	796	3.7	47	30	797	7.2	55	29	795	1.7	59	30	798	9.8	24	30	800	3.3	57	30	796	1.0	62	30	794	−0.7	60
2,500	29	749	−0.4	54	30	750	4.7	46	29	748	−1.0	58	30	751	5.4	28	30	752	0.8	49	30	748	−1.2	58	30	746	−4.3	63
3,000	29	703	−4.6	63	30	705	1.9	43	29	702	−3.8	55	30	706	1.5	33	30	706	−2.0	47	30	702	−3.8	57	30	700	−7.3	64
4,000	29	618	−12.5	73	30	622	−4.2	38	29	618	−9.6	51	30	623	−4.8	----	30	622	−7.5	46	30	618	−9.6	56	30	615	−14.1	69
5,000	29	541	−18.7	61	29	547	−11.1	----	28	542	−16.1	----	29	548	−11.5	----	30	546	−13.2	45	30	542	−15.9	56	30	538	−20.4	----
6,000	29	472	−25.6	----	29	480	−18.2	----	28	474	−22.9	----	29	480	−18.5	----	30	478	−19.5	52	30	474	−21.9	55	30	469	−27.3	----
7,000	29	411	−32.6	----	29	419	−25.7	----	28	412	−30.2	----	29	419	−26.2	----	30	417	−26.4	----	30	413	−28.9	51	30	408	−34.8	----
8,000	29	356	−39.4	----	29	364	−33.3	----	28	357	−37.3	----	28	364	−33.5	----	29	362	−33.5	----	29	358	−35.9	----	29	353	−41.7	----
9,000	29	307	−45.6	----	29	315	−40.9	----	28	308	−44.3	----	28	315	−40.6	----	28	313	−40.9	----	25	310	−42.6	----	29	303	−48.8	----
10,000	29	263	−51.4	----	29	271	−48.3	----	26	266	−50.0	----	28	272	−47.5	----	28	270	−47.2	----	23	267	−49.0	----	28	260	−53.2	----
11,000	29	225	−56.1	----	27	233	−54.6	----	26	228	−54.7	----	28	233	−53.6	----	28	231	−53.4	----	20	229	−55.2	----	28	223	−56.0	----
12,000	27	192	−57.4	----	26	199	−58.4	----	22	194	−55.8	----	23	199	−57.0	----	27	198	−57.4	----	16	196	−57.8	----	24	190	−55.3	----
13,000	25	164	−55.3	----	18	170	−59.8	----	19	166	−55.8	----	21	169	−58.8	----	24	169	−58.9	----	14	167	−57.8	----	21	163	−53.5	----
14,000	22	140	−56.0	----	13	145	−61.0	----	17	142	−56.5	----	18	144	−59.7	----	21	144	−59.2	----	6	142	−57.8	----	16	140	−53.7	----
15,000	15	120	−56.9	----	7	123	−60.0	----	11	121	−56.4	----	15	123	−61.7	----	14	122	−56.5	----	----	----	----	----	8	119	−53.8	----
16,000	8	102	−57.4	----	5	104	−62.3	----	7	103	−57.1	----	8	105	−62.6	----	9	103	−58.3	----	----	----	----	----	5	101	−55.4	----
17,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	6	89	−56.9	----	----	----	----	----	----	----	----	----
18,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	6	76	−57.3	----	----	----	----	----	----	----	----	----

See footnotes at end of table.

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during April 1945*—Continued

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL—Continued

Altitude (meters) m. s. l.	St. Louis, Mo. (171 m.)				St. Paul, Minn. (225 m.)				San Antonio, Tex. (240 m.)				San Juan, P. R. (15 m)				Santa Maria, Calif. (71 m.)				Sault Ste. Marie, Mich. (221 m.)				Spokane, Wash. (598 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	29	996	13.0	71	30	987	7.0	64	30	984	19.1	76	28	1015	23.9	81	30	1008	10.3	81	25	988	1.8	76	30	945	7.9	59
500	29	958	12.2	63	30	955	5.4	61	30	955	18.9	68	28	960	19.7	82	30	958	11.9	64	25	954	1.7	69				
1,000	29	902	10.0	62	30	897	2.2	65	30	901	16.5	67	28	906	17.2	81	30	903	12.9	44	25	897	−0.6	67	30	900	6.0	52
1,500	29	849	7.2	64	30	844	0.0	66	30	850	14.2	57	28	854	14.3	77	30	850	10.0	41	25	842	−2.5	64	30	846	2.0	57
2,000	29	798	4.5	60	30	792	−1.6	54	30	800	12.8	37	28	805	11.7	68	30	800	6.6	37	25	790	−4.5	54	30	794	−2.2	65
2,500	29	751	2.3	53	30	744	−4.3	53	30	754	10.5	----	28	758	9.7	58	30	753	4.3	----	25	742	−6.6	52	30	746	−6.3	70
3,000	29	705	−0.1	48	30	698	−7.1	53	30	710	7.4	----	28	713	7.9	38	30	707	1.3	----	25	695	−9.0	50	30	699	−10.1	73
4,000	29	622	−6.4	44	29	613	−13.2	63	30	628	.6	----	28	632	2.8	----	30	624	−3.9	----	25	610	−14.2	54	30	613	−16.4	66
5,000	29	546	−12.8	49	28	537	−19.9	----	30	554	−6.1	----	28	557	−2.8	----	30	549	−10.4	----	25	534	−20.8	----	30	536	−23.0	----
6,000	28	479	−19.7	40	28	468	−26.8	----	30	486	−13.4	----	28	490	−9.2	----	30	481	−17.4	----	25	466	−27.5	----	30	467	−29.7	----
7,000	27	418	−26.3	----	28	407	−33.9	----	29	426	−20.8	----	28	431	−15.8	----	30	420	−25.2	----	24	404	−34.5	----	30	405	−36.7	----
8,000	27	363	−33.3	----	28	352	−40.7	----	29	371	−28.4	----	28	376	−22.9	----	30	365	−33.3	----	23	349	−41.3	----	30	350	−43.1	----
9,000	26	314	−40.7	----	28	303	−47.2	----	29	322	−36.0	----	28	327	−29.5	----	29	316	−41.2	----	23	301	−47.6	----	30	300	−48.7	----
10,000	26	271	−48.2	----	28	260	−52.8	----	29	278	−43.5	----	28	284	−36.6	----	27	272	−49.0	----	23	258	−52.1	----	26	258	−53.5	----
11,000	25	232	−55.1	----	28	223	−55.6	----	29	239	−50.6	----	28	246	−43.9	----	27	233	−56.3	----	20	221	−53.3	----	23	221	−56.2	----
12,000	21	198	−59.9	----	26	190	−55.6	----	27	205	−56.8	----	25	211	−51.4	----	24	199	−61.0	----	18	189	−53.0	----	16	188	−54.6	----
13,000	17	168	−60.8	----	25	163	−54.4	----	25	174	−60.9	----	24	180	−59.0	----	20	169	−61.8	----	15	161	−50.7	----	15	161	−53.6	----
14,000	13	143	−60.5	----	19	139	−54.4	----	17	148	−63.0	----	22	153	−65.6	----	17	144	−62.2	----	13	138	−50.9	----	11	138	−54.6	----
15,000	9	121	−59.5	----	13	119	−54.6	----	12	126	−66.1	----	15	130	−71.2	----	11	122	−62.7	----	12	118	−52.5	----	9	119	−55.6	----
16,000	6	103	−59.6	----	----	----	----	----	----	----	----	----	8	110	−75.4	----	5	105	−65.8	----	9	101	−52.9	----	5	101	−55.8	----
17,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	7	87	−52.8	----	----	----	----	----
18,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	5	74	−53.2	----	----	----	----	----

Altitude (meters) m. s. l.	Swan Island, W. I. (10 m.)				Tacubaya, Mexico (2,306 m.)				Tampa, Fla. (3 m.)				Tatoosh Island, Wash. (31 m.)				Toledo, Ohio (191 m.)				Washington, D. C. (25 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,013	25.5	81	29	774	18.3	41	22	1,017	23.4	81	30	1,016	7.3	84	30	995	8.6	73	29	1,016	14.1	69
500	30	958	22.0	82	----	----	----	----	22	961	21.0	73	30	960	4.1	82	30	958	9.4	63	29	960	11.6	64
1,000	30	905	19.3	67	----	----	----	----	22	907	18.4	66	30	902	1.0	82	30	902	6.7	65	29	905	8.8	66
1,500	30	853	16.9	53	----	----	----	----	22	855	15.4	66	30	848	−2.0	80	30	848	4.3	61	29	851	6.5	62
2,000	30	804	14.1	45	----	----	----	----	22	805	12.3	63	30	796	−4.4	71	30	798	2.3	56	29	800	4.2	54
2,500	30	758	11.5	35	29	756	17.3	40	22	759	9.1	53	30	747	−6.8	65	30	750	0.0	50	29	753	1.5	53
3,000	30	713	9.8	21	29	713	13.9	41	22	714	6.1	48	30	700	−9.5	59	30	704	−2.7	47	29	707	−0.6	44
4,000	30	632	4.8	----	29	632	6.2	47	22	632	1.0	----	30	614	−15.4	56	30	620	−8.5	47	29	623	−6.1	44
5,000	30	558	−0.3	----	29	559	−2.0	61	22	557	−5.4	----	30	537	−21.5	----	30	544	−14.6	----	29	548	−12.1	48
6,000	30	492	−7.0	----	28	492	−9.1	57	22	489	−11.9	----	30	469	−27.8	----	29	476	−21.3	----	29	480	−19.2	----
7,000	30	432	−14.0	----	27	432	−15.6	40	21	429	−18.7	----	30	407	−34.4	----	29	415	−28.2	----	29	419	−26.5	----
8,000	29	378	−21.5	----	27	377	−22.6	----	21	374	−26.1	----	29	352	−40.8	----	29	360	−35.3	----	28	364	−33.4	----
9,000	29	329	−29.1	----	27	328	−30.2	----	21	325	−34.3	----	29	303	−47.3	----	29	311	−42.2	----	28	315	−40.9	----
10,000	29	286	−37.0	----	26	285	−37.8	----	21	281	−42.4	----	24	260	−52.9	----	29	268	−48.6	----	28	271	−48.3	----
11,000	29	246	−44.7	----	23	246	−45.8	----	21	241	−50.3	----	20	223	−56.8	----	27	230	−53.7	----	26	233	−55.0	----
12,000	29	212	−52.2	----	20	211	−53.6	----	21	206	−57.1	----	19	190	−55.2	----	25	196	−56.3	----	19	198	−58.8	----
13,000	29	181	−59.5	----	6	180	−60.8	----	19	176	−62.3	----	17	162	−53.5	----	22	167	−57.0	----	16	169	−60.0	----
14,000	29	154	−66.1	----	----	----	----	----	13	150	−65.7	----	13	138	−52.7	----	16	142	−56.6	----	14	144	−60.0	----
15,000	17	131	−71.0	----	----	----	----	----	7	127	−69.4	----	5	117	−52.2	----	11	121	−55.2	----	----	----	----	----
16,000	8	111	−74.9	----	----	----	----	----	----	----	----	----	----	----	----	----	5	104	−56.8	----	----	----	----	----

NOTE.—All observations scheduled between 10 p. m. and midnight, E. S. T. (0300 and 0500, G. C. T.), except at Mazatlan and Merida, where they are taken near 9 p. m. (0200, G. C. T.).

"Number of observations" refers to pressure only. (In a few cases temperature or humidity data may be missing for one or more levels of some observations.) Relative humidity data are not published for levels having a corresponding mean temperature below −20° C.

All relative humidity observations are obtained by electric hygrometer and have been adjusted to compensate for the values occurring below the operating range of the humidity element. For explanation of the adjustment see article entitled "Curve Method for Obtaining Monthly Means of Relative Humidity," p. 241, MONTHLY WEATHER REVIEW, December 1944.

None of the means included in these tables are based on less than 15 surface or 5 standard level observations.

Raob data for Havana, Cuba, will appear in a later issue.

TABLE 2.—*Free-air resultant winds based on pilot-balloon observations made near 5 p. m., E. S. T. (2200 G. C. T.) during April 1945. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second*

Altitude (meters) m. s. l.	Abilene, Tex. (534 m.)			Albuquerque, N.Mex. (1,630 m.)			Atlanta, Ga. (299 m.)			Billings, Mont. (1,095 m.)			Bismarck, N. Dak. (512 m.)			Boise, Idaho (868 m.)			Brownsville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burlington, Vt. (132 m.)			Charleston, S. C. (16 m.)			Cincinnati, Ohio (152 m.)			Denver, Colo. (1,627 m.)			El Paso, Tex. (1,196 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	30	141	2.7	30	240	3.8	28	219	0.6	30	291	2.3	29	311	3.4	29	318	4.8	30	118	5.0	29	251	5.1	28	237	2.0	29	180	1.1	30	242	1.7	27	51	0.5	29	239	4.9
500							28	244	0.7										30	129	4.6	29	245	6.6	28	223	4.7	29	200	3.1	30	240	2.8						
1,000	30	169	3.4				28	239	2.2				29	295	4.0	29	309	5.2	23	148	3.3	25	244	10.8	26	230	6.6	27	233	2.4	29	238	5.1						
1,500	28	210	4.3				26	246	3.0	30	270	3.0	28	290	5.3	29	306	4.9	17	198	4.3	23	239	12.9	23	239	6.9	25	262	4.6	25	242	7.3				29	241	5.9
2,000	27	233	6.8	30	243	4.2	24	255	3.4	29	278	3.5	24	283	6.5	29	304	5.4	15	234	5.2	21	244	13.0	21	264	8.1	24	270	6.7	22	257	8.0	27	75	0.4	29	248	5.4
2,500	23	236	9.8	30	249	5.0	18	286	5.9	27	277	5.3	18	275	9.0	27	303	6.0	14	239	4.5	18	245	13.0	17	278	10.5	20	265	8.1	19	261	8.6	24	324	0.7	29	251	6.0
3,000	21	249	11.8	30	249	7.1	16	278	8.1	21	271	7.8	16	277	11.6	23	293	6.0	13	258	5.9	14	254	11.3	11	280	8.6	17	272	9.5	19	266	10.0	20	247	2.3	29	256	8.0
4,000	19	261	14.8	27	258	10.2	15	274	12.1	15	275	11.1	10	273	15.3	20	296	10.1				12	264	12.8				12	285	12.5	13	270	13.6	17	281	17.8	25	259	14.7
5,000	18	261	15.7	25	271	14.6	14	269	15.5	13	287	12.3	10	266	16.7	16	302	12.6				12	263	15.2							10	275	16.4	14	291	12.2	23	256	17.6
6,000	15	269	18.6	24	271	19.2				10	281	15.6				12	310	16.2				10	257	15.6										11	289	15.7	20	252	18.3
8,000	10	255	21.8	16	265	19.6																																	
10,000				11	268	27.2																																	

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.)			Grand Junction, Colo. (1,413 m.)			Greensboro, N. C. (271 m.)			Havre, Mont. (767 m.)			Jacksonville, Fla. (16 m.)			Joliet, Ill. (178 m.)			Las Vegas, Nev. (573 m.)			Little Rock, Ark. (88 m.)			Medford, Oreg. (410 m.)			Miami, Fla. (12 m.)			Mobile, Ala. (66 m.)			Nashville, Tenn. (194 m.)			New York, N. Y. (15 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	30	327	3.1	30	294	2.6	28	228	1.0	27	278	4.7	29	93	3.5	29	211	2.5	30	250	0.7	27	168	1.8	29	304	2.4	29	129	4.6	28	154	2.4	29	221	1.6	29	202	3.1
500							28	212	2.3				29	115	2.6	29	224	2.9				27	185	2.2	29	302	2.6	29	130	5.6	28	168	3.4	29	201	2.8	28	239	4.9
1,000							27	213	3.5	27	279	7.2	27	215	2.1	24	226	6.3	30	266	1.3	27	205	3.2	29	304	2.8	29	137	3.7	23	162	1.4	27	208	3.7	27	258	6.4
1,500				30	298	2.7	25	236	4.4	27	279	6.4	26	251	2.9	22	237	7.0	30	247	1.8	26	236	3.9	29	300	2.7	28	133	8.6	22	234	0.8	26	208	4.7	27	275	6.4
2,000	30	325	2.9	30	300	2.9	25	256	5.4	25	276	5.6	25	261	3.3	19	235	8.8	30	253	2.6	23	252	6.8	26	308	2.9	27	298	1.1	20	240	1.6	25	226	5.7	20	279	6.3
2,500	30	316	4.4	27	274	3.2	21	268	5.9	19	274	8.6	22	264	3.8	11	255	8.2	29	267	3.8	20	255	9.2	22	325	4.3	26	324	1.7	18	272	2.9	23	246	7.0	20	287	7.7
3,000	28	304	4.7	27	250	5.1	19	274	7.3	11	271	8.9	18	252	4.2	10	254	8.6	28	266	4.9	17	253	12.4	19	329	6.4	26	327	1.3	16	259	3.3	20	244	10.8	17	289	9.5
4,000	19	296	6.2	17	265	7.2	16	268	9.3				15	251	2.0				26	303	8.6	15	257	15.1	15	326	9.5	22	17	1.2	13	263	4.8	19	250	13.9	11	292	9.0
5,000	15	309	10.0				14	282	9.3				13	292	6.9				24	294	11.0	11	270	17.7	12	320	10.6	17	332	3.1				16	256	17.4			
6,000							10	290	7.6				12	281	7.3				23	303	12.4				12	320	13.7	17	313	5.4				14	264	18.1			
8,000																			17	307	15.2							14	301	11.7									
10,000																			12	287	14.0							11	295	19.1									

Altitude (meters) m. s. l.	Oakland, Calif. (8 m.)			Oklahoma City, Okla. (396 m.)			Omaha, Nebr. (306 m.)			Phoenix, Ariz. (338 m.)			Rapid City, S. Dak. (982 m.)			St. Louis, Mo. (181 m.)			St. Paul, Minn. (225 m.)			San Antonio, Tex. (240 m.)			San Diego, Calif. (15 m.)			Sault Ste. Marie, Mich. (225 m.)			Seattle, Wash. (116 m.)			Spokane, Wash. (603 m.)			Washington, D. C. (24 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	30	278	4.8	26	162	1.9	29	270	1.0	30	264	1.6	29	343	3.5	27	203	1.5	30	247	1.1	30	122	2.0	26	265	3.9	27	256	3.7	28	225	3.7	30	232	3.2	27	230	0.7
500	29	317	4.7	26	162	2.3	29	250	1.8	30	264	2.1				27	203	2.8	30	210	1.5	30	137	3.0	25	282	3.7	27	251	3.7	28	226	4.5				27	243	2.9
1,000	27	338	4.5	26	178	4.2	27	210	2.8	30	255	2.9	29	343	3.5	25	224	4.7	25	228	4.4	29	154	2.8	22	309	2.7	24	248	4.2	28	232	5.2	30	240	5.0	27	257	4.6
1,500	27	347	5.4	23	191	5.4	24	229	6.4	30	241	3.6	29	340	3.3	22	243	6.5	20	246	4.3	24	221	2.1	21	311	3.0	22	255	5.6	22	235	5.2	28	245	5.7	24	274	6.9
2,000	27	341	6.8	22	229	6.8	20	248	8.1	30	244	3.8	26	307	4.1	17	247	7.6	14	285	7.9	21	259	3.6	20	331	3.4	20	257	8.2	17	244	5.1	25	245	6.6	24	277	9.1
2,500	27	343	7.8	21	242	8.0	16	256	8.8	29	250	4.5	24	286	5.5	16	259	8.1	12	289	9.3	19	265	7.4	18	330	3.9	19	263	10.3	10	273	5.4	17	261	6.0	23	277	9.3
3,000	26	338	10.0	18	253	9.4	11	254	12.1	29	262	5.8	19	281	7.3	14	282	9.9				18	259	9.1	18	330	6.4	13	272	11.2				12	291	5.1	21	273	9.9
4,000	25	337	13.3	13	270	14.3				29	277	8.7	15	274	8.7	13	296	14.2				16	262	12.9	18	320	8.8									19	275	12.0
5,000	23	329	13.1	12	273	16.9				27	277	11.4				11	298	15.9				13	264	14.6	18	313	12.5									18	270	15.6
6,000	22	327	13.2	10	270	17.0				26	278	13.6										12	271	17.4	18	309	14.5									15	268	18.2
8,000	15	318	12.8							16	262	19.2										10	265	24.3	15	310	17.9											
10,000	12	306	16.2							11	268	19.9													14	308	18.8											

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during April 1945*

Section	Surface to 2,500 meters (m. s. l.)					Above 2,500 to 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station
Northeast [1]	54.6	W.	1,365	1	Boston, Mass.	51.2	NW.	3,342	22	Philadelphia, Pa.	70.0	WNW.	10,447	1	Portland, Maine.
East-Central [2]	38.4	WNW.	1,904	27	Washington, D. C.	52.0	WSW.	5,000	5	Washington, D. C.	69.2	WSW.	10,309	6	Huntington, W. Va.
	31.4	SW.	2,009	2	Atlanta, Ga.										
Southeast [3]	31.4	SW.	1,908	2	Birmingham, Ala.	33.8	W.	4,974	26	Atlanta, Ga.	43.8	WNW.	14,872	12	Miami, Fla.
North-Central [4]	42.6	S.	2,148	28	Duluth, Minn.	37.9	W.	3,375	7	S. Ste. Marie, Mich.	54.0	WNW.	9,347	21	Int'l Falls, Minn.
Central [5]	41.8	S.	1,150	9	Dodge City, Kans.	41.2	SW.	3,151	16	St. Louis, Mo.	61.6	WSW.	8,075	4	Wichita, Kans.
South-Central [6]	43.0	S.	1,884	10	Abilene, Tex.	45.5	W.	4,801	4	Oklahoma City, Okla.	70.0	W.	9,557	4	Amarillo, Tex.
Northwest [7]	32.6	WSW.	1,538	5	Great Falls, Mont.	43.0	WNW.	3,766	28	Butte, Mont.	65.0	W.	7,755	6	Glasgow, Mont.
West-Central [8]	34.0	WNW.	2,489	4	Cheyenne, Wyo.	49.4	WNW.	4,879	16	Elko, Nev.	67.0	N.	7,101	13	Reno, Nev.
Southwest [9]	47.5	NW.	2,500	25	Sandberg, Calif.	64.1	SSW.	4,498	9	El Paso, Tex.	65.0	W.	10,915	4	Albuquerque, N.Mex.

[1] Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.
[2] Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.
[3] South Carolina, Georgia, Florida, and Alabama.
[4] Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.
[5] Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.
[6] Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.
[7] Montana, Idaho, Washington, and Oregon.
[8] Wyoming, Colorado, Utah, northern Nevada, and northern California.
[9] Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.

RIVER STAGES AND FLOODS

By C. R. JORDAN

Precipitation during April was heavy in central and eastern United States, with areas in Kansas and Missouri reporting more than three times the normal rainfall. Precipitation was deficient in most of the West except the central Rocky Mountain area and the northwestern corner of the country.

Widespread flooding occurred from Missouri to Texas and many long-time records were broken in the streams of this area. Streamflow was below normal throughout the Atlantic Coast States, particularly the Southeastern States, and over a broad belt extending from western Texas to Washington.

Hudson Bay and St. Lawrence Drainage.—The Red River of the North, at Grand Forks, N. Dak., was above flood stage the first 3 days of April but fell steadily during this period from the crest of 32 feet that occurred on March 30. There was also some light overflow of the St. Marys, St. Joseph, and Maumee Rivers in Ohio and Indiana that carried over from March.

Atlantic Slope Drainage.—Run-off was generally below normal from Vermont to Florida with the Lynches River at Effingham, S. C., reaching the lowest April discharge in 16 years, according to the U. S. Geological Survey. Only minor flooding of lowlands was reported at scattered points from Maine to Georgia.

East Gulf of Mexico Drainage.—The Tombigbee River was in rather severe flood at the beginning of April as reported in the March REVIEW. Stages fell steadily until the night of April 24–25 when rainfall, averaging 1.75 inches from Lock No. 3 to the mouth of the river, and a 24-hour fall of 4.14 inches at Demopolis caused a rapid rise in the lower Tombigbee River. Additional rainfall on the 28–29 produced flood stages at Lock No. 3 and Lock No. 1. Damage, principally loss of wages near Lock No. 1 and general delay in planting bottom-land crops, was not great.

Pearl River was considerably above flood stage at the beginning of the month and remained above flood stage at some stations until the 19th. Stages on the Chickasawhay and Pascagoula Rivers were comparatively high, but no flood stages were reached except at Enterprise, Miss., on one day. Since the rivers were mostly receding from the high waters of the previous month, little or no damage was reported.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.—There was moderate overflow of many of the upper Mississippi River tributaries in Missouri, Iowa, and Illinois, as shown by the table at the end of this report, and the Mississippi River exceeded flood stage from Dubuque, Iowa, to Cape Girardeau, Mo. From Dubuque to Burlington, Iowa, the stream fell below flood stage during the first 10 days of April, but from Keokuk to Cape Girardeau, Mo., numerous crests that were somewhat above flood stage were recorded at intervals throughout the month.

Ohio Basin.—Locally heavy rain over the headwaters of the Little Miami River during the night of April 23–24 resulted in a "flash" rise in the upper and middle reaches of that stream during the early morning of April 24. A crest of 17.25 feet was reached at Kings Mills, Ohio, at 9 a. m. which exceeded flood stage by 0.25 foot. No damage of any kind resulted. There was some overflow in the Wabash River in Indiana, and the lower Ohio River was above flood stage at the beginning of the month. Secondary crests, considerably lower than those reached a few weeks earlier, were reached late in March or early April; but the stream was generally below flood stage by the middle of April, except near the mouth where flood stages were carried over into May.

Lower Missouri, Lower Mississippi, and West Gulf of Mexico Drainages.—Frequent heavy rains from late March through the middle of April over a broad belt from Kansas and Missouri southward to Louisiana and Texas produced widespread flooding in this area. Run-off was above normal in the area for the past three months, and soil conditions were favorable for a very high percentage of run-off from the rainfall. Widespread damage resulted to roads, railroads, homes, and farms which, it is reported, will amount to millions of dollars.

The Missouri River exceeded flood stage from Kansas City, Mo., downstream, but maximum stages were not approached. The flood in the Gasconade River came within two feet of the crest reached by the record stage of 1897, and the Osage River at LaCygne, Kans., approached within a tenth of a foot the record stage reached by the flood of April 1944. Below the Kansas-Missouri line, the flood in the Osage River was relatively less severe.

Many of the Arkansas River tributaries in Arkansas, Missouri, Kansas, and Oklahoma reached stages near or above the highest stages ever recorded. At Seminole, Okla., a little more than 12 inches of rain fell in 9 hours on April 13. Many of the smaller streams in the vicinity of Seminole were several feet higher than ever before known, and some loss of life was reported. Record stages were exceeded on the White River, and the crest of the Arkansas River at Van Buren, Ark., exceeded slightly the stage reached in May 1943, although the peak discharge was about 200,000 c. f. s. less according to the U. S. Geological Survey.

Record-breaking stages were reached on the Ouachita, Black, Little, Sulphur, Cypress, and Red Rivers, as well as many of the smaller streams in this area. The Red River flood in Louisiana was particularly severe and caused extensive damage. The American Red Cross reports that nearly 40,000 persons were evacuated from their homes, and it is estimated that close to 1,500,000 acres of rich farming and grazing lands were flooded.

High stages prevailed in the Lower Mississippi River and the Atchafalaya River throughout the month. Crests reached in the Mississippi River below the mouth of the Red exceeded somewhat the stages reached during the flood of 1937 but were from 1 to 2 feet below record stages. The stage at New Orleans, La., was kept below 20 feet by diverting water through the Bonnet Carre Spillway.

Table I gives a comparison of the stages reached during this flood with the maximum stages previously recorded at selected stations throughout the area.

TABLE I.—*Summary of provisional stages in Lower Missouri, Lower Mississippi, and West Gulf Drainages.*

River and station	Maximum stage during April*		Maximum stage previously known	
Missouri Basin				
Grand:	*Stage*	*Date*	*Stage*	*Date*
Gallatin, Mo.	28.4	18	37.7	June 2, 1929
Chillicothe, Mo.	30.3	18	32.1	June 3, 1929
Brunswick, Mo.	19.7	20	23.3	June 20, 1943
Osage:				
Quenemo, Kans.	36.6	16	38.4	Nov. 17, 1928
Ottawa, Kans.	36.2	16	37.6	Do.
Osawatomie, Kans.	42.1	17	42.7	Apr. —, 1944
La Cygne, Kans.	31.8	18	31.9	Apr. —, 1944
Trading Post, Kans.	29.9	18	34.45	Nov. 18, 1926
Osceola, Mo.	31.1	17	41.7	May 20, 1943
Bagnell Dam, Lakeside, Mo.	61.8	18	65.4	May 22, 1943
St. Thomas, Mo.	31.1	19	43.7	May 20, 1943
Gasconade: Jerome, Mo.	27.3	15	29.0	Jan. 6, 1897
Missouri:				
Kansas City, Mo.	23.4	18	34.95	June 2, 1903
Waverly, Mo.	22.3	19	24.4	Apr. 24, 1944
Boonville, Mo.	24.1	20	30.9	Apr. 27, 1944
Jefferson City, Mo.	25.2	21	33.5	June 6, 1903
Hermann, Mo.	27.6	20–21	31.1	May 21, 1943
St. Charles, Mo.	33.0	21	36.8	June 8, 1903
White Basin				
Buffalo: Gilbert, Ark.	42.0	15	39.0	Dec. 13, 1927
Current: Doniphan, Mo.	19.1	16	24.0	Mar. 12, 1935
Black:				
Leeper, Mo.	13.8	Mar. 31	20.0	May 14, 1933
Williamsville, Mo.	15.9	Mar. 31	23.98	Aug. —, 1915
Poplar Bluff, Mo.	20.5	16	21.1	Mar. 12, 1935
Black Rock, Ark.	27.1	1	31.9	Aug. 21, 1915
White:				
Ozark Beach, Mo.	39.1	16	38.4	May 12, 1943
Cotter, Ark.	40.9	17	39.7	June 12, 1943
Calico Rock, Ark.	48.8	16	51.9	Jan. 31, 1916
Batesville, Ark.	41.3	16	43.4	Feb. 1, 1916
Newport, Ark.	35.9	18	35.6	Apr. 16, 1927
Georgetown, Ark.	32.0	4	31.4	May 18, 1943
Des Arc, Ark.	36.2	4	34.7	May 21, 1943
Clarendon, Ark.	39.1	24	43.3	Apr. 23, 1927
St. Charles, Ark.	39.2	26–27	40.1	Feb. 13–14, 1937
Arkansas Basin				
Little Arkansas: Sedgwick, Kans.	24.8	16	24.2	Apr. 22, 1944
Walnut: Winfield, Kans.	35.9	17	40.6	Nov. 18, 1928
Cimarron: Perkins, Okla.	13.8	17	14.6	Aug. 18, 1932
Verdigris:				
Independence, Kans.	47.3	17	47.6	May 20, 1943
Claremore, Okla.	47.1	21	55.0	May 21, 1943
Cottonwood:				
Cottonwood Falls, Kans.	----	----	16.0	Apr. 23, 1944
Emporia, Kans.	27.4	16–17	27.7	Do.
Neosho:				
Neosho Rapids, Kans.	28.0	15	28.2	Do.
Burlington, Kans.	35.1	17	35.0	Apr. 24, 1944
LeRoy, Kans.	29.2	17	29.7	Do.
Iola, Kans.	22.4	18	22.6	Apr. 25, 1944
Chanute, Kans.	----	----	28.9	May 19, 1943
Parsons, Kans.	29.0	21	29.7	Apr. 27, 1944
Oswego, Kans.	26.0	21	25.9	Apr. 28, 1944
Wyandotte, Okla.	----	----	30.0	Apr. 30, 1912
Poteau: Poteau, Okla.	32.2	Mar. 31	39.0	June 22, 1935
Mulberry: Mulberry, Ark.	19.8	15	22.0	Apr. —, 1927
Petit Jean: Danville, Ark.	29.5	31	30.0	June 18, 1935
Arkansas:				
Wichita, Kans.	10.3	17	13.5	June 10, 1923
Arkansas City, Kans.	22.2	18	25.5	Do.
Ralston, Okla.	20.4	19	23.2	June 11, 1923
Tulsa, Okla.	15.5	18	19.8	June 13, 1923
Muskogee, Okla.	35.3	18	48.5	May 21, 1943
Webbers Falls, Okla.	37.0	15	39.0	May 22, 1943
Fort Smith, Ark.	38.4	17	41.7	May 12, 1943
Van Buren, Ark.	38.1	16–17	38.0	Do.
Ozark, Ark.	33.5	19	39.8	May 14, 1943
Morrillton, Ark.	30.4	21	32.0	Apr. 19, 1927
Little Rock, Ark.	28.1	21	33.0	Apr. 20, 1927
Pine Bluff, Ark.	31.9	23	33.8	May 29, 1943
Red Basin				
Ouachita:				
Arkadelphia, Ark.	29.9	Mar. 31	29.2	Apr. 21, 1927
Camden, Ark.	44.8	3	41.5	Jan. 25, 1937
Monroe, La.	50.4	15	49.7	Feb. 2, 1932
Black: Jonesville, La.	58.5	28, 30	55.8	Feb. 4, 1937
Little: Whitecliffs, Ark.	33.4	1	32.0	Aug. 21, 1915
Sulphur:				
Hagansport, Tex.	45.1	Mar. 31	44.7	May 7, 1941
Naples, Tex.	37.6	1	35.5	Jan. 25, 1938
Cypress: Jefferson, Tex.	29.6	2	28.6	May 20, 1930
Red:				
Index, Ark.	28.4	1	34.4	Feb. 23, 1938
Fulton, Ark.	37.4	2	36.4	Feb. 24, 1938
Garland, Ark.	37.0	8	36.0	Do.
Grand Ecore, La.	44.7	10	39.3	May 31, 1930
Alexandria, La.	45.2	17	43.6	Feb. 3, 1932
Lower Mississippi Basin				
Big Lake Outlet: Manila, Ark.	17.5	5–6	21.4	Jan. 27, 1937
St. Francis:				
Fisk, Mo.	24.6	17	27.0	Mar. 12, 1935
St. Francis, Ark.	23.4	20	28.2	Mar. 15, 1935

See footnotes at end of table.

TABLE I.—*Summary of provisional stages in Lower Missouri, Lower Mississippi, and West Gulf Drainages*—Continued

River and station	Maximum stage during April*		Maximum stage previously known	
Lower Mississippi Basin—Continued				
St. Francis—Continued.	*Stage*	*Date*	*Stage*	*Date*
Parkin, Ark.	30.7	9–11	41.6	Apr. 4, 1897
Madison, Ark.	34.8	13	41.8	Apr. 21, 1912
Tallahatchie: Swan Lake, Miss.	30.6	8	37.0	Jan. 15, 1932
Yazoo:				
Greenwood, Miss.	37.0	Mar. 14	40.1	Jan. 19, 1932
Yazoo City, Miss.	35.8	5	43.4	May 5, 1927
Mississippi:				
New Madrid, Mo.	42.1	Mar. 22–23 4–5	47.9	Feb. 2, 1937
Memphis, Tenn.	39.3	6	48.67	Feb. 10, 1937
Helena, Ark.	49.3	8–10	60.21	Feb. 12, 1937
Arkansas City, Ark.	46.3	8	60.4	Apr. 21, 1927
Greenville, Miss.	45.2	6–10	54.7	Do.
Vicksburg, Miss.	47.5	29	58.6	May 4, 1927
Natchez, Miss.	54.7	11–12, 14	58.0	Feb. 21, 1937
Red River Landing, La.	56.4	29–30	57.5	May 15, 1927
Baton Rouge, La.	45.7	29–30	47.8	Do.
Donaldsonville, La.	35.3	29	37.2	Do.
Reserve, La.	25.9	28–30	26.0	June 11, 1929
New Orleans, La.	[1] 19.8	28	21.3	Apr. 25, 1922
Atchafalaya Basin				
Atchafalaya:				
Simmesport, La.	51.4	28–30	53.4	May 16, 1927
Melville, La.	45.7	Apr. 25–May 1	46.8	May 14, 1927
Atchafalaya, La.	28.7	May 3–8	25.9	Mar. 7, 1937
Morgan City, La.	8.8	28	9.7	June 10, 1927
West Gulf of Mexico Drainage				
Sabine:				
Gladewater, Tex.	45.1	2	41.2	June 11, 1943
Logansport, La.	44.0	8	36.9	May 5, 1915
Bon Wier, Tex.	23.1	17–18	23.4	May 22, 1935
Orange, Tex.	4.5	22–24	6.6	Apr. 25, 1913
Neches:				
Rockland, Tex.	28.3	11	31.8	May 6, 1944
Evadale, Tex.	19.9	16	23.6	May —, 1944
Elm Fork: Carrollton, Tex.	10.2	3	14.5	Apr. 25–26, 1942
East Fork: Rockwall (near), Tex.	17.0	Mar. 31	24.8	Apr. 20, 1942
Trinity:				
Dallas, Tex.	41.0	Mar. 31	52.6	May 25, 1908
Rosser (near), Tex.	33.8	2	41.5	Apr. 22, 1942
Trinidad, Tex.	44.1	4	49.8	Apr. 25, 1942
Long Lake, Tex.	50.8	4	52.2	June 4, 1908
Riverside, Tex.	51.8	9	52.7	May 6, 1942
Liberty, Tex.	28.8	15	29.4	May 12, 1942
Brazos:				
Waco, Tex.	37.0	22	40.9	Sept. 27, 1936
Valley Junction, Tex.	47.7	24	----	Dec. 5, 1913

* All dates in April, unless otherwise specified.
[1] Stages affected by operation of Bonnet Carre Spillway.

FLOOD-STAGE REPORT FOR APRIL 1945

[All dates in April unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest[1]	
		From—	To—	Stage	Date
HUDSON BAY DRAINAGE					
Red of North: Grand Forks, N. Dak.	*Feet* 25	Mar. 24	3	*Feet* 32.0	Mar. 30
ST. LAWRENCE DRAINAGE					
Lake Erie					
St. Marys: Decatur, Ind.	13	Mar. 31	3	15.8	2
St. Joseph: Montpelier, Ohio	10	1	7	12.1	4
Maumee: Fort Wayne, Ind.	15	1	6	16.8	2
ATLANTIC SLOPE DRAINAGE					
Kennebec: Augusta, Maine	13	Mar. 30 3 28	3 4 29	13.4 13.7 13.4	2 4 29
Connecticut:					
South Newbury, Vt.	22	Mar. 29	3	25.5	Mar. 30
White River Junction, Vt.	18	1	1	18.1	1
Hartford, Conn.	16	Mar. 29 6 27	3 8 29	17.5 17.6 18.1	Mar. 31 7 28
Saluda:					
Pelzer, S. C.	6	25	26	6.5	25
Chappells, S. C.	13	26	26	13.4	26
Broad: Blairs, S. C.	14	26	26	14.0	26
Broad: Carlton Bridge, Ga.	15	25	25	17.6	25
Savannah: Butler Creek, Ga.	21	26	28	23.4	27
Ocmulgee: Macon, Ga.	18	26	28	22.8	27
Oconee: Milledgeville, Ga.	20	26	29	25.7	27

See footnotes at end of table.

FLOOD-STAGE REPORT FOR APRIL 1945—Continued

[All dates in April unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
EAST GULF OF MEXICO DRAINAGE	*Feet*			*Feet*	
Chattahoochee: West Point, Ga.	19	25	26	20.6	25
Apalachicola: Blountstown, Fla.	15	27	May 9	19.7	May 1-2
Alabama: Millers Ferry, Ala.	40	27	(2)	42.4	29
Tombigbee:					
				56.4	Feb. 28-Mar. 1
Lock No. 4, Demopolis, Ala.	39	Feb. 14	8	55.3	Mar. 28
				46.2	Mar. 25
				43.0	
		Feb. 14		56.8	Feb. 28-
Lock No. 3	33		11	50.3	Mar. 1
				45.8	5-6
		29	May 5	41.9	May 1
Lock No. 2	46	Feb. 16	8	57.8	Mar. 1-2
				52.7	Mar. 28
				38.9	Mar. 6-7
		Feb. 17	11	37.3	Mar. 28
Lock No. 1	31			36.5	2-3
		30	May 5	33.0	May 2
Sowashee Creek: Meridian, Miss.	15	29	29	16.7	29
Chickasawhay: Enterprise, Miss.	20	29	(2)	----	----
Pearl:					
				32.6	Mar. 1
Jackson, Miss.	18	Feb. 8	14	26.8	Mar. 26
				26.7	6
				20.9	Feb. 23, 26
				22.6	Mar. 5
Monticello, Miss.	15	Feb. 21	9	20.3	Mar. 19
				18.0	Mar. 31
				18.5	3
				19.0	Mar. 23
Columbia, Miss.	17	Mar. 17	8	17.6	Mar. 31
				18.2	5
		Feb. 13	19	15.0	Mar. 5
		----	----	15.2	Mar. 15
		----	----	14.5	Mar. 21
Pearl River, La.	12	----	----	15.0	Mar. 29
		----	----	15.2	6
		20	20	12.0	20
		29	(2)	----	----
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Des Moines:					
		16	21	18.9	18
Tracy, Iowa	14	28	(2)	----	----
		16	21	19.8	18
Eddyville, Iowa	15	28	May 1	15.7	30
		16	22	13.4	19
Ottumwa, Iowa	9	30	(2)	----	----
Salt: New London, Mo.	19	14	15	22.6	15
Illinois: Beardstown, Ill.	14	6	23	14.8	18
		1	2	14.9	2
Bourbeuse: Union, Mo.	12	4	4	13.0	4
		16	16	12.9	16
Meramec:					
		Mar. 31	1	17.5	Mar. 31
Sullivan, Mo.	11	3	4	17.6	3
		14	17	25.5	15
		Mar. 31	6	21.4	2
Pacific, Mo.	11	14	19	23.7	16
		Mar. 31	6	26.8	3
Valley Park, Mo.	14	14	19	28.9	17
Mississippi:					
Dubuque, Iowa	18	Mar. 27	4	18.9	Mar. 29
Gordons Ferry, Iowa	13	Mar. 20	11	17.0	Mar. 29-31
Clinton, Iowa	16	Mar. 26	8	17.6	Mar. 31
Davenport, Iowa	15	Mar. 31	1	15.0	Mar. 31-Apr. 1
Muscatine, Iowa	15	Mar. 25	10	17.2	1-2
Keithsburg, Ill.	12	Mar. 23	10	13.9	1-2
Burlington, Iowa	15	Mar. 27	5	15.4	2
		Mar. 21		16.8	Mar. 26
			14	15.8	2
				15.2	7
Keokuk, Iowa	12			13.2	18
		16	25	13.8	20
				12.1	26
		26	26		
Gregory Landing, Mo.	12	Mar. 21	30	17.1	Mar. 27
				15.8	2
				19.8	Mar. 27
				16.1	14
Quincy, Ill.	14	Mar. 20	29	15.9	18-19
				16.0	21
				15.0	27
				19.9	Mar. 27
				17.4	8
Hannibal, Mo.	13	Mar. 19	(2)	16.9	14
				16.2	19
				16.3	22
				15.6	27
				18.7	Mar. 27
Louisiana, Mo.	12	Mar. 19	(2)	16.0	15
				15.4	19
				14.6	28
Grafton, Ill.	18	Mar. 26	30	22.7	4
		Mar. 27	6	32.4	Mar. 31
St. Louis, Mo.	30			32.3	3-4
		16	26	33.9	21
		Mar. 25	11	33.4	3-4
Chester, Ill.	27	15	(2)	33.6	23
		Mar. 23	12	38.7	3
Cape Girardeau, Mo.	32	13	May 2	37.9	22-24

See footnotes at end of table.

FLOOD-STAGE REPORT FOR APRIL 1945—Continued

[All dates in April unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
Missouri Basin					
Smoky Hill:	*Feet*			*Feet*	
Lindsborg, Kans.	21	16	16	21.9	16
Abilene, Kans.	22	17	19	24.8	17
Enterprise, Kans.	26	16	19	28.7	16
Republican:					
Clay Center, Kans.	15	16	16	16.6	16
Junction City, Kans.	10	16	16	11.4	16
Little Blue: Hanover, Kans.	14	25	25	15.6	25
Big Blue:					
Barnston, Nebr.	18	16	16	27.2	16
Blue Rapids, Kans.	20	16	17	26.0	16
Randolph, Kans.	22	16	17	24.7	16
Delaware: Valley Falls, Kans.	22	16	16	24.65	16
Kansas:					
Ogden, Kans.	18	16	17	19.7	16
Manhattan, Kans.	17	16	18	22.5	16
Wamego, Kans.	16	16	18	19.4	17
Topeka, Kans.	21	16	18	24.6	17
LeCompton, Kans.	17	16	18	22.5	17
Lawrence, Kans.	18	16	19	22.5	17
Grand:					
Gallatin, Mo.	20	16	19	28.4	18
		16	20	30.3	18
Chillicothe, Mo.	18	26	26	18.8	26
		17	23	19.7	20
Brunswick, Mo.	12	27	27	12.5	27
Osage:					
Quenemo, Kans.	27	15	18	36.6	16
Ottawa, Kans.	24	15	19	36.2	16
Osawatomie, Kans.	28	15	20	42.1	17
		16	22	31.8	18
La Cygne, Kans.	25	28	28	25.1	28
Trading Post, Kans.	24	15	22	29.9	18
		1	1	20.1	1
Osceola, Mo.	20	15	(2)	31.1	17
Bagnell Dam, Lakeside, Mo.	60	15	30	61.8	18
St. Thomas, Mo.	23	15	(2)	31.1	19
		1	5	17.4	3
Gasconade: Jerome, Mo.	15	14	18	27.3	15
Missouri:					
Kansas City, Mo.	22	17	18	23.4	18
Waverly, Mo.	18	17	20	22.3	19
Boonville, Mo.	21	17	22	24.1	20
Jefferson City, Mo.	23	18	22	25.2	21
		Mar. 26	4	23.6	Mar. 27-28
Hermann, Mo.	21	15	25	27.6	20-21
		26	30	22.5	28-29
		Mar. 21	5	28.9	Mar. 29
St. Charles, Mo.	25	15	(2)	33.0	21
Ohio Basin					
Scioto: LaRue, Ohio	11	3	3	11.1	3
Little Miami: Kings Mills, Ohio	17	24	24	17.2	24
Green: Lock No. 2, Rumsey, Ky.	34	Feb. 23	2	44.4	Mar. 13-14
West Fork:					
		Mar. 31	2	11.2	1
Anderson, Ind.	10	2	4	11.3	3
Elliston, Ind.	18	1	9	25.4	5
		Mar. 31	12	21.7	6
Edwardsport, Ind.	12	14	21	16.3	18
		28	(2)	14.6	29
East Fork: Seymour, Ind.	14	3	6	15.9	5
		17	18	14.8	17
White:					
		1	12	22.4	8
Petersburg, Ind.	16	16	23	18.2	20
				27.0	Mar. 10
		Feb. 27	14	21.2	Mar. 27
Hazleton, Ind.	16	16	24	23.5	8-9
				18.6	21
Wabash:					
Bluffton, Ind.	10	2	4	10.9	3
Wabash, Ind.	12	Mar. 31	6	16.8	2
LaFayette, Ind.	11	1	8	18.5	3
Covington, Ind.	16	1	9	22.0	5
Terre Haute, Ind.	14	Mar. 31	11	18.4	7
Vincennes, Ind.	14	2	15	17.9	10
Mt. Carmel, Ill.	17	1	20	23.0	9-10
New Harmony, Ind.	15	2	18	18.3	10-11
Ohio:					
Dam No. 47, Newburgh, Ind.	38	Feb. 23	4	50.9	Mar. 12
				42.1	Mar. 29
Evansville, Ind.	37	Feb. 24	3	48.3	Mar. 12
				39.9	Mar. 30
Dam No. 48, near Henderson, Ky.	38	Feb. 25	4	51.8	Mar. 13
Mount Vernon, Ind.	35	Feb. 25	6	41.7	Mar. 31
				51.2	Mar. 14
Dam No. 49, Uniontown, Ky.	37	Feb. 27	8	54.6	Mar. 14-15
				41.6	Mar. 31-Apr. 1
Shawneetown, Ill.	33	Feb. 24	16	55.6	Mar. 14
				42.2	2
				58.3	Mar. 14-16
Dam No. 50, Fords Ferry, Ky.	34	Feb. 23	18	45.4	Mar. 31
				45.6	2

See footnotes at end of table.

FLOOD-STAGE REPORT FOR APRIL 1945—Continued

[All dates in April unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
Ohio Basin—Continued					
	Feet			*Feet*	
Ohio—Continued.					
Dam No. 51, Golconda, Ill.	40	Feb. 28	7	53.2	Mar. 15
				43.2	Mar. 31
				43.4	2
Paducah, Ky.	39	Feb. 25	8	50.5	Mar. 10
				52.3	Mar. 10
Dam No. 52, Brookport, Ill.	37	Feb. 22	17	45.3	Mar. 31
				45.7	2–3
				37.6	16
				56.3	Mar. 11
Dam No. 53, nr. Mound City, Ill.	42	Feb. 22	29	53.3	3–4
				45.8	16–17
				53.9	Mar. 11
				53.8	Mar. 21–22
Cairo, Ill.	40	Feb. 23	May 5	53.7	4
				46.5	17
White Basin					
Buffalo: Gilbert, Ark.	30	14	16	42.0	15
Current: Doniphan, Mo.	10	Mar. 31	4	15.6	1
		14	18	19.1	16
Black:					
Leeper, Mo.	11	Mar. 31	Mar. 31	13.8	Mar. 31
		14	15	12.7	15
Williamsville, Mo.	11	Mar. 31	3	15.9	Mar. 31
				12.2	3
		14	17	17.0	15
Popular Bluff, Mo.	16	Mar. 31	6	19.4	1
		15	19	20.5	16
				20.0	Feb. 23
				25.3	Feb. 28
				23.9	Mar. 4
				24.9	Mar. 7–8
				22.0	Mar. 16–17
Black Rock, Ark.	14	Feb. 21	(2)	24.9	Mar. 20
				22.3	Mar. 26–27
				27.1	1
				26.2	3
				27.0	16
				25.5	20–21
White:					
Ozark Beach, Mo.	30	15	17	39.1	16
Cotter, Ark.	21	2	5	27.4	3
		14	19	40.9	17
Calico Rock, Ark.	19	Mar. 30	6	29.4	Mar. 31
				32.2	3
		14	20	48.8	16
Batesville, Ark.	23	Mar. 30	8	33.2	Mar. 31
				33.3	2
				34.4	4
		14	22	41.3	16
Newport, Ark.	26	Mar. 19	(2)	31.6	Mar. 23
				33.4	5
				35.9	18
				36.4	Mar. 9
				36.3	Mar. 25
Augusta, Ark.	32	Feb. 25	(2)	39.2	5
				35.0	13
				41.0	19
				29.8	Mar. 9–10
Georgetown, Ark.	21	Feb. 24	(2)	29.1	Mar. 26–27
				32.0	4
				28.7	20
				34.5	Mar. 10–12
Des Arc, Ark.	24	Feb. 26	(2)	33.3	Mar. 27–28
				36.2	4
				30.2	21
				33.4	Mar. 14–16
Clarendon, Ark.	26	Feb. 27	(2)	38.2	9–10
				39.1	24
St. Charles, Ark.	25	Mar. 2	(2)	38.6	11–12
				39.2	26–27
Arkansas Basin					
Little Arkansas: Sedgwick, Kans.	18	15	19	24.8	16
Walnut: Winfield, Kans.	23	15	19	35.9	17
Cimarron: Perkins, Okla.	11	12	12	11.8	12
		16	18	13.8	17
Verdigris:					
Independence, Kans.	36	----------	----------	47.3	17
Sageeyah, Okla.					
Claremore, Okla.	32	----------	----------	47.1	21
Cottonwood: Emporia, Kans.	20	15	20	27.4	16–17
Neosho:					
Burlington, Kans.	27	15	21	35.1	17
LeRoy, Kans.	23	15	21	29.2	17
Iola, Kans.	15	15	22	22.4	18
Oswego, Kans.	17	15	30	26.0	21
Poteau: Poteau, Okla.	21	Mar. 28	4	32.2	Mar. 31
		----------	14	23.25	13
Mulberry: Mulberry, Ark.	18	15	15	19.8	15

See footnotes at end of table.

FLOOD-STAGE REPORT FOR APRIL 1945—Continued

[All dates in April unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
Arkansas Basin—Continued					
	Feet			*Feet*	
Petit Jean: Danville, Ark.	20	Mar. 25	6	29.5	Mar. 31
				20.3	6
Arkansas:					
Wichita, Kans.	9	16	19	10.3	17
Oxford, Kans.	14	17	18	15.1	17
Arkansas City, Kans.	16	15	20	22.2	18
Ralston, Okla.	16	16	20	20.4	19
Tulsa, Okla.	12	17	21	15.5	18
Muskogee, Okla.	25.5	13	22	35.3	18
		23	26	26.6	24
				37.0	15
Webbers Falls, Okla.	23	14	28	26.4	24
				25.7	27
		Mar. 30	Mar. 31	22.3	Mar. 31
Fort Smith, Ark.	22	2	3	23.2	2
		14	30	38.4	17
		Mar. 30	4	23.3	Mar. 31
Van Buren, Ark.	22			23.5	2
		14	(3)	38.1	16–17
				27.1	26
Ozark, Ark.	22	15	28	35.9	19
		Mar. 29	4	27.1	Mar. 31
Dardanelle, Ark.	22			24.2	2
		15	(3)	33.5	19
		Mar. 29	5	23.9	Mar. 31
Morrilton, Ark.	20			23.0	3
		15	30	30.4	21
		Mar. 31	5	24.0	1
Little Rock, Ark.	23			23.9	3
		17	29	28.1	21
		Mar. 31	6	27.0	3
Pine Bluff, Ark.	25	17	30	31.9	23
Red Basin					
Little Missouri: Boughton, Ark.	20	Mar. 30	3	27.2	Mar. 31
Saline: Benton, Ark.	20	Mar. 30	Mar. 31	23.5	Mar. 31
		2	2	22.0	2
Ouachita:					
Arkadelphia, Ark.	17	Mar. 29	4	29.9	Mar. 31
				35.8	Feb. 27
Camden, Ark.	26	Feb. 23	13	38.2	Mar. 4
				33.0	Mar. 18
				33.8	Mar. 25
				44.8	3
Monroe, La.	40	Mar. 10	(3)	50.4	15
Black: Jonesville, La.	50	Mar. 18	(3)	58.5	28, 30
Little: Whitecliffs, Ark.	25	Mar. 21	8	27.4	Mar. 23
				33.4	1
Sulphur:					
Hagansport, Tex.	38	Mar. 30	5	45.1	Mar. 31
				26.1	Mar. 20
Naples, Tex.	22	Mar. 15	11	25.3	Mar. 24
				37.6	1
Cypress: Jefferson, Tex.	18	Mar. 31	10	29.6	2
Red:					
Index, Ark.	25	Mar. 30	5	28.4	1
Fulton, Ark.	25	Mar. 19	10	28.1	Mar. 24
				37.4	2
Garland, Ark.	30	Mar. 31	10	37.0	8
				38.6	Mar. 12
Grand Ecore, La.	33	Mar. 3	30	37.8	Mar. 28
				44.7	10
				40.0	Mar. 20
Alexandria, La.	32	Mar. 2	(3)	39.7	Mar. 25
				45.2	17
Lower Mississippi Basin					
				15.8	Mar. 10–11
Big Lake Outlet: Manila, Ark.	10	Feb. 23	(3)	17.5	5–6
				16.7	20–21
St. Francis:					
Fisk, Mo.	20	Mar. 24	(3)	23.7	7–8
				24.6	17
				20.2	Mar. 23
St. Francis, Ark.	18	Mar. 19	(3)	20.3	Mar. 26
				21.9	8
				23.4	20
Parkin, Ark.	28	1	(3)	30.7	9–11
				29.5	28–29
				34.7	9–10
Madison, Ark.	32	Mar. 31	(3)	34.8	13
				33.2	28
Tallahatchie: Swan Lake, Miss.	26	Feb. 27	19	30.6	Mar. 8
				28.7	Mar. 28
				29.2	6
Yazoo:					
				37.0	Mar. 14
Greenwood, Miss.	35	Mar. 8	6	36.1	Mar. 27
				35.8	2
				35.0	Mar. 26
Yazoo City, Miss.	29	Mar. 5	(3)	35.8	5
Mississippi:					
				42.0	Mar. 12
				42.1	Mar. 22–23
New Madrid, Mo.	34	Feb. 27	30		Apr. 4–5
				36.7	18

See footnotes at end of table.

FLOOD-STAGE REPORT FOR APRIL 1945—Continued

[All dates in April unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
Lower Mississippi Basin—Continued					
	Feet			*Feet*	
Mississippi—Continued.					
Memphis, Tenn.	34	Mar. 9	17	37.7	Mar. 17
				38.9	Mar. 27
				39.3	6
Helena, Ark.	44	Mar. 14	24	49.3	8–10
Arkansas City, Ark.	42	Mar. 22	May 5	46.3	8
				45.5	25–27
Greenville, Miss.	39	Mar. 18	May 11	45.2	6–10
				44.8	26
				47.1	12
Vicksburg, Miss.	43	Mar. 26	May 11	47.2	14
				47.5	29
				54.7	11–12, 14
Natchez, Miss.	48	Mar. 21	May 17	54.6	18–19
Red River Landing, La.	45	Mar. 15	(3)	50.4	29–30
				45.2	18–19
Baton Rouge, La.	35	Mar. 14	(3)	45.6	27
				45.7	29–30
Donaldsonville, La.	28	Mar. 15	(3)	35.3	29
				24.9	Mar. 26
				25.0	Mar. 30
Reserve, La.	22	Mar. 16	(3)	25.8	12, 15, 17
				25.9	Apr. 28–May
				19.1	Mar. 22
				19.2	Mar. 29–30,
New Orleans, La.[4]	17	Mar. 16	May 28		Apr. 1
				19.6	12
				19.7	17
				19.8	30
Atchafalaya Basin					
Atchafalaya:					
Simmesport, La.	41	Mar. 20	(3)	51.4	28–30
				45.5	20
Melville, La.	37	Mar. 16	(3)	45.6	22
				45.7	Apr. 25–May 1
Atchafalaya, La.	25	Mar. 8	(3)	28.7	May 3–8
			5	8.8	1
Morgan City, La.	6	Mar. 30		7.2	16–17
		6	(3)	8.0	28
WEST GULF OF MEXICO DRAINAGE					
Calcasieu: Kinder, La.	16	2	9	19.7	4
Sabine:					
				35.1	Feb. 28
				36.8	Mar. 5
Gladewater, Tex.	26	Feb. 24	15	31.2	Mar. 25
				45.1	2

FLOOD-STAGE REPORT FOR APRIL 1945—Continued

[All dates in April unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
Atchafalaya Basin—Continued					
	Feet			*Feet*	
Sabine—Continued.					
Logansport, La.	25	Mar. 4	24	34.2	Mar. 11
				44.1	8
				19.8	Mar. 27–28
Bon Wier, Tex.	17	Mar. 15	(3)	22.0	5
				23.1	17–18
Orange, Tex.	4	20	26	4.5	22–24
Neches:					
Rockland, Tex.	22	3	18	28.3	11
Evadale, Tex.	16	2	27	19.9	16
Elm Fork: Carrollton, Tex.	6	Mar. 29	1	7.3	Mar. 31
		1	5	10.2	3
East Fork: Rockwall (near), Tex.	10	Mar. 29	6	17.0	Mar. 31
				15.6	3
Trinity:					
		Mar. 29	8	41.0	Mar. 31
		12	12	28.4	12
Dallas, Tex.	28	13	14	29.1	14
		22	25	31.3	23
				30.3	25
				42.0	Feb. 28
				43.6	Mar. 5
Trinidad, Tex.	28	Feb. 20	21	35.6	Mar. 24
				40.4	Mar. 31
				44.1	4
		26	(3)	29.6	29
Long Lake, Tex.	40	Mar. 29	18	50.8	4
Midway, Tex.	40	2	22	48.5	6
Riverside, Tex.	40	2	3	40.6	2
		5	17	51.8	9
				24.6	Feb. 26
				27.8	Mar. 21–23
Liberty, Tex.	24	Feb. 23	May 5	27.9	7–8
				28.8	15–16
Brazos:					
Waco, Tex.	27	21	23	37.0	22
Valley Junction, Tex.	44	24	24	47.7	24
East Columbia, Tex.	30	26	30	34.1	28
Guadalupe:					
Gonzales, Tex.	20	Mar. 31	3	24.6	2
Cuero, Tex.	23	2	5	25.8	3
Victoria, Tex.	21	2	6	28.4	6
Nueces: Cotulla, Tex.	15	4	4	15.6	4

[1] Provisional.
[3] Continued into May.
[5] Levee broke at that stage.
[4] Stages after March 23 affected by operation of Bonnet Carre Spillway.

CLIMATOLOGICAL DATA

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS

[For description of tables and charts, see Review, January 1943, p. 15]

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.

Section	Temperature								Precipitation					
			Monthly extremes								Greatest monthly		Least monthly	
	Section average	Departure from the normal	Station	Highest	Date	Station	Lowest	Date	Section average	Departure from the normal	Station	Amount	Station	Amount
	°F.	°F.		°F.			°F.		In.	In.		In.		In.
Alabama	66.7	+3.2	3 stations	92	[1] 14	Valley Head	32	6	7.69	+3.06	Clanton	15.05	Waterloo	4.27
Arizona	56.0	−2.3	2 stations	103	[1] 20	Fort Valley	0	11	.18	−.50	2 stations	1.22	32 stations	.00
Arkansas	62.6	+1.1	Hot Springs	89	3	Gravette	23	5	7.44	+2.43	Red Star	15.90	Story	2.12
California	55.4	−.6	Cow Creek	106	30	Ellery Lake	−9	13	.58	−1.13	Crescent City (near)	5.22	14 stations	.00
Colorado	39.3	−4.4	2 stations	89	9	Taylor Park	−29	5	2.22	+.40	Callin Ranch	6.36	Wagon Wheel Gap	.33
Florida	74.1	+4.2	Wauchula	99	26	Compass Lake	42	8	3.15	+.23	Madison	9.31	2 stations	.12
Georgia	66.4	+3.0	Camp Stewart	95	21	Clayton	22	7	6.71	+2.85	Cairo	12.01	Dover	2.21
Idaho	41.2	−3.9	2 stations	89	20	Island Park Dam	−11	10	1.25	−.20	Roland	5.64	2 stations	T
Illinois	53.9	+1.5	Mount Carmel	84	10	3 stations	26	[1] 19	5.35	+1.75	New Burnside	11.87	Galena	2.86
Indiana	53.8	+1.9	4 stations	85	[1] 10	Forest Reserve	20	6	4.40	+.79	New Harmony	7.70	Fort Wayne	1.93
Iowa	48.7	−.1	Onawa	83	22	Sibley	11	5	4.38	+1.64	Sac City	8.03	Inwood	1.59
Kansas	52.0	−2.7	3 stations	92	9	Burr Oak	6	5	5.58	+2.89	Neosho Rapids	11.79	Richfield	.88
Kentucky	58.6	+2.6	Pikesville	89	12	Clermont	22	6	4.36	+.33	Lovelaceville	9.66	Greensburg	2.55
Louisiana	68.5	+1.4	Donaldsonville	93	26	Plain Dealing	34	6	5.72	+1.03	Cranens	12.67	Hackberry	1.58
Maryland-Delaware	56.2	+4.0	2 stations	90	[1] 13	Oakland, Md	20	6	3.62	+.10	Emmitsburg, Md	5.83	Ocean City, Md	1.64
Michigan	45.8	+3.0	Adrian	86	11	Garnet	9	22	3.43	+1.05	Bergland	5.30	Harrisville	1.98
Minnesota	40.5	−2.5	Winona	81	10	Hallock	0	21	2.69	+.58	Austin	5.62	Willmar Airport	1.03
Mississippi	66.4	+1.8	Bay St. Louis	90	26	3 stations	34	[1] 5	5.71	+.81	Meridian	10.60	Fleet	2.04
Missouri	55.9	+.6	2 stations	86	[1] 13	Black (near)	20	6	7.75	+3.71	Ozark Beach	13.82	Crookfield	3.43
Montana	38.6	−4.6	Wolf Point	82	21	Adel	−20	2	1.21	+.07	Summit	4.15	Scobey	.05
Nebraska	46.0	−3.2	2 stations	92	9	Harrison	1	4	2.88	+.45	Falls City	6.68	Fort Robinson	.39
Nevada	46.0	−2.0	Overton	101	30	Marlette Lake	−2	3	.52	−.28	Jarbridge	4.82	5 stations	.00
New England	49.2	+5.5	7 stations	89	[1] 11	2 stations	13	[1] 4	4.42	+1.07	Whitingham, Vt	7.91	North Truro, Mass	1.39
New Jersey	54.5	+4.9	Sussex	90	13	Layton	20	23	3.28	−.33	Morris Plains	5.29	Sandy Hook	1.97
New Mexico	48.9	−2.6	Orogrande	96	[1] 28	Eagle Nest	−36	5	.64	−.26	Aspen Grove Ranch	4.12	16 stations	.00
New York	50.1	+5.8	Dansville	91	11	Peru	14	16	4.08	+1.06	Cherryplain	7.05	Burdett	2.07
North Carolina	62.9	+4.9	4 stations	92	[1] 14	2 stations	16	[1] 5	3.60	+.03	Highlands	9.71	Wadesboro	.50
Ohio	53.1	+3.3	Ironton	88	[1] 12	New Lexington	19	6	3.97	+.77	Sedalia	6.80	Put-in-Bay	2.09
Oklahoma	58.2	−2.2	Tipton	93	10	2 stations	10	4	5.79	+2.28	Okemah	17.78	Goodwell	.52
Oregon	44.7	−2.5	2 stations	86	[1] 19	Olive Lake	2	14	2.14	+.14	Valsetz	11.90	2 stations	.01
Pennsylvania	52.4	+3.8	Marcus Hook	90	14	Springs	18	6	4.17	+.72	South Mountain	6.67	Covington	1.93
South Carolina	66.6	+4.2	Walterboro	92	27	Caesars Head	27	7	3.72	+.47	Crescent	7.56	Columbia Airport	1.72
South Dakota	42.8	−3.1	Longvalley	89	8	Custer	−2	4	1.19	−.87	Madison	3.30	Oelrichs	.18
Tennessee	60.7	−2.0	Dover	92	13	2 stations	26	[1] 6	5.22	+.80	Monteagle	7.97	Kingsport	2.71
Utah	42.8	−4.3	2 stations	93	[1] 1	Silver Lake(Brighton)	−11	[1] 3	1.47	+.23	G. B. E. S. Headquarters.	6.91	Hanksville	T
Virginia	58.1	+3.5	4 stations	92	14	Mountain Lake	15	[1] 6	2.99	−.30	Stuart	4.88	Dale Enterprise	1.47
Washington	45.5	−3.3	Omak	85	21	Paradise R. S.	8	28	2.52	+.37	Palmer	12.38	Oroville	.10
West Virginia	55.6	+3.7	2 stations	92	[1] 10	2 stations	12	[1] 6	3.37	−.17	Mannington	5.27	Brandywine	1.46
Wisconsin	44.5	+.8	3 stations	81	[1] 10	Long Lake	12	15	3.89	+1.37	Deerskin Dam	6.06	Marinette	2.60
Wyoming	35.0	−5.3	Hawk Springs	82	21	Moran	−28	3	1.92	+.30	Middle Fork	5.60	Deaver	.10
Alaska (March)	14.1	+.4	Tree Point	55	25	Allakaket	−50	10	2.18	+.35	Baranof	28.20	Wainwright	.04
Hawaii (March)	70.5	+1.6	2 stations	90	[1] 18	Haleakala Ranger Station..	37	7	8.73	+.86	Makahanaloa No. 2	54.40	3 stations	.00
Puerto Rico	74.1	−1.0	do	92	[1] 7	2 stations	53	[1] 2	5.86	+1.55	San Lorenzo	16.83	Maunabo	.91
Hawaii	71.0	+.9	Kaanapali	90	3	Haleakala Ranger Station.	38	4	11.46	+2.94	Kahana	33.22	Pohakuloa	.10

[1] Other dates also.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Mean	Temperature of the air: Departure from normal	Temperature of the air: Maximum	Temperature of the air: Date	Temperature of the air: Mean maximum	Temperature of the air: Minimum	Temperature of the air: Date	Temperature of the air: Mean minimum	Temperature of the air: Greatest daily range	Total degree days	Mean temperature of the dew-point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: Days with 0.01 inch or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
	Ft.	*Ft.*	*Ft.*	*Mbs.*	*Mbs.*	*Mbs.*	°*F*	°*F*	°*F*		°*F*	°*F*		°*F*	°*F*		°*F*	%	*In.*	*In.*	*In.*		*Mi.*								*0–10*	*In.*	*In.*	
NEW ENGLAND							49.1	+5.8										73	3.39	+0.3											6.0			
Eastport	75	67	85	1,013.2	1,016.6	+3.1	42.4	+3.4	72	14	49	27	15	36	34	677	34	76	3.38	+.5	.88	11	11.8	s.	38	e.	3	9	7	14	6.2	T	0.0	0
Greenville, Maine	1,070	6	41	976.6	1,017.3	----	41.3	+4.2	83	12	55	14	16	28	51	707	33	---	5.46	+2.5	1.78	13	----	s.	---	----------	---	5	12	13	----	2.0	.0	1
Portland, Maine [1]	103	5	43	1,012.9	1,017.3	+2.7	47.0	+4.0	80	12	57	22	7	37	42	542	38	78	3.28	−.1	1.09	14	11.1	s.	33	s.	7	9	7	14	5.9	.0	.0	0
Concord [1]	289	5	45	1,006.4	1,017.6	+2.0	49.1	+7.5	88	13	62	19	7	36	45	481	37	69	4.38	+1.6	2.10	12	9.6	nw.	46	nw.	22	10	6	14	6.1	.0	.0	0
Burlington [1]	403	5	51	1,001.4	1,016.6	+1.0	49.6	+6.3	84	11	60	24	23	39	35	469	37	68	3.84	+1.7	1.31	13	11.9	s.	34	s.	7	5	8	17	7.1	T	.0	1
Boston [1]	124	33	62	1,012.9	1,018.0	+3.1	52.5	+6.1	85	12	61	33	23	44	31	388	40	68	2.02	−1.3	.86	12	13.5	sw.	36	nw.	22	9	6	15	6.1	.0	.0	0
Nantucket	12	11	59	1,017.6	1,018.6	+3.7	49.3	+5.9	71	14	56	35	6	42	26	491	42	84	2.43	−1.1	1.30	8	15.7	sw.	49	nw.	21	11	9	10	5.1	.0	.0	0
Block Island	26	11	46	1,017.3	1,018.6	+3.4	48.8	+4.8	72	14	56	35	6	42	26	491	42	84	2.43	−1.1	1.30	8	15.7	sw.	49	nw.	21	11	9	10	5.1	.0	.0	0
Providence [5]	159	46	60	1,012.2	1,018.6	+3.4	54.5	+7.9	85	13	64	34	6	45	34	330	39	70	2.57	−.6	1.74	7	11.0	nw.	33	nw.	22	9	7	14	6.1	.0	.0	1
Hartford [1]	159	5	44	1,012.2	1,018.6	+3.0	53.2	+6.5	84	13	64	29	7	42	39	357	40	68	4.67	+1.3	2.65	11	10.1	s.	35	nw.	21	9	7	14	6.0	.0	.0	0
New Haven [1]	107	5	39	1,014.6	1,018.6	+3.0	52.2	+7.3	81	14	62	30	7	43	34	389	40	72	3.47	+.2	1.94	11	8.5	sw.	26	se.	25	11	7	12	5.5	.0	.0	0
MIDDLE ATLANTIC							56.4	+5.1										71	3.08	+0.1											6.0			
Albany [1]	97	26	40	1,013.5	1,017.6	+1.7	50.8	+6.4	85	13	61	28	23	40	39	437	38	68	3.05	+.9	1.76	14	11.9	s.	35	nw.	18	9	6	15	6.3	T	.0	3
Binghamton [2]	871	60	79	986.1	1,018.3	+1.7	51.4	+6.1	86	13	62	26	23	40	39	419	39	72	3.09	+.6	.83	12	7.2	w.	25	w.	21	5	9	16	6.8	.2	.0	3
New York	314	415	454	1,007.1	1,019.0	+3.1	54.8	+5.4	81	14	63	36	6	46	24	311	42	68	3.02	−.2	1.35	10	14.3	nw.	54	nw.	5	11	8	11	5.5	.0	.0	3
Harrisburg [1]	374	30	49	1,005.1	1,019.3	+2.7	54.7	+3.8	85	13	65	32	7	44	34	320	42	68	4.09	+1.4	1.24	11	9.0	se.	34	nw.	27	9	6	15	6.0	.0	.0	5
Philadelphia [1]	114	5	57	1,014.9	1,019.6	+3.3	56.4	+5.8	84	14	67	33	6	46	36	264	44	72	2.89	−.2	.89	10	9.4	sw.	37	w.	14	8	7	15	6.3	.0	.0	3
Reading	323	47	306	1,007.1	1,019.6	----	55.5	+4.7	84	13	66	34	23	45	36	292	---	---	3.43	+.2	1.03	10	12.6	se.	39	nw.	14	8	9	13	5.8	T	.0	4
Scranton	805	72	104	989.5	1,019.3	+3.0	52.6	+4.5	85	13	63	29	23	42	40	383	---	---	3.71	+.9	1.50	10	7.3	n.	33	nw.	21	7	10	13	5.9	T	.0	1
Atlantic City	52	37	172	1,017.3	1,019.6	+3.7	52.9	+5.1	78	3	59	35	6	47	25	364	46	82	2.79	−.2	1.01	11	16.0	s.	41	nw.	5	7	9	14	6.5	.0	.0	4
Trenton	190	89	107	1,011.9	1,019.3	----	56.0	+6.2	84	14	66	34	6	46	32	276	43	69	2.42	−.5	.75	9	9.6	nw.	38	nw.	14	8	8	14	6.1	.0	.0	3
Baltimore [2]	123	100	215	1,014.6	1,019.6	+3.3	58.4	+4.8	86	13	68	37	6	49	29	216	45	69	3.55	+.2	.90	11	10.2	s.	36	nw.	26	12	7	11	5.4	.0	.0	5
Washington [2]	112	56	100	1,015.2	1,019.6	+3.0	59.5	+6.2	86	13	70	35	7	49	34	197	45	66	3.26	.0	0.91	11	7.7	s.	29	nw.	5	9	8	13	6.0	.0	.0	4
Cape Henry	18	8	54	1,018.3	1,019.3	----	60.3	+5.7	89	14	67	44	6	53	27	187	52	77	1.83	−1.5	.56	11	12.5	ne.	42	n.	5	11	6	13	6.1	.0	.0	2
Lynchburg [1]	686	4	50	993.9	1,019.3	+2.7	59.2	+1.9	88	14	70	30	6	48	36	215	45	68	3.98	+1.0	2.45	13	8.7	n.	27	s.	2	9	10	11	5.6	.0	.0	3
Norfolk [2]	91	80	125	1,015.9	1,020.0	+3.7	62.1	+5.3	87	14	70	42	7	54	29	149	51	76	2.12	−1.1	.73	12	10.5	ne.	28	n.	6	8	8	14	6.0	.0	.0	3
Richmond	144	11	52	1,013.2	1,018.6	+2.0	61.3	+4.7	90	14	72	32	7	50	33	169	49	70	2.90	−.6	1.12	12	8.3	sw.	26	sw.	21	12	7	11	5.4	.0	.0	3
SOUTH ATLANTIC							65.6	+4.2										75	3.71	+0.6											5.5			
Asheville	2,253	77	92	939.4	1,019.0	+2.1	58.4	+4.5	83	3	70	28	7	47	39	226	44	68	4.87	+1.8	2.09	9	8.9	se.	30	e.	25	9	9	12	5.6	.0	.0	4
Charlotte [3]	779	63	86	0.990.9	1,019.3	+2.4	63.9	+4.1	88	15	74	32	7	54	33	112	50	70	3.81	+.5	1.33	8	7.5	ne.	26	sw.	26	8	9	13	5.8	.0	.0	3
Greensboro [1]	886	6	56	987.5	1,019.6	----	60.5	+4.2	87	14	73	25	7	48	41	169	50	74	2.55	−1.0	.96	10	8.9	ne.	27	sw.	26	9	10	11	5.7	.0	.0	3
Hatteras	11	5	50	1,018.3	1,019.0	+2.7	63.2	+3.4	79	3	69	47	6	57	21	99	58	85	1.84	−1.7	.45	13	13.8	ne.	32	n.	19	9	8	13	5.8	.0	.0	1
Raleigh [1]	376	5	69	1,005.4	1,019.3	+2.4	63.8	+4.4	87	14	75	34	7	53	34	117	52	76	4.40	+.9	1.84	10	7.7	sw.	24	sw.	26	13	8	9	4.7	.0	.0	4
Wilmington	72	73	107	1,016.3	1,019.0	+2.1	66.8	+4.8	86	3	75	43	6	58	29	48	58	79	3.10	+.4	.88	9	10.5	s.	37	s.	2	6	13	11	5.9	.0	.0	2
Charleston [2]	48	11	92	1,016.6	1,018.6	+1.7	69.6	+5.1	85	26	77	44	6	63	23	24	60	83	4.62	+2.1	1.80	11	10.9	s.	29	s.	25	12	11	7	4.9	.0	.0	5
Columbia, S. C.	347	70	91	1,005.8	1,018.6	+1.7	67.2	+3.9	87	14	78	36	7	57	34	57	54	69	1.75	−1.1	1.05	9	8.7	ne.	28	s.	25	11	9	10	5.2	.0	.0	3
Greenville, S. C.	1,040	18	36	981.4	1,019.0	----	63.2	+4.6	85	15	73	34	7	53	29	112	49	68	6.14	+2.4	1.76	9	10.1	ne.	31	sw.	26	12	6	12	5.5	.0	.0	7
Augusta [2]	182	62	77	1,011.5	1,018.3	+1.4	68.0	+3.8	88	26	79	37	7	57	33	43	53	68	4.50	+1.4	1.62	7	6.4	nw.	28	s.	25	10	10	10	5.2	.0	.0	6
Savannah [2]	65	73	15	2,015.9	1,018.6	+1.7	70.2	+4.2	90	26	79	43	6	62	26	23	60	84	3.91	+1.3	1.36	10	11.0	s.	42	sw.	25	10	10	10	5.4	.0	.0	6
Jacksonville [2]	43	86	110	1,016.9	1,019.0	+1.7	72.5	+3.8	89	26	81	49	7	64	23	21	62	80	3.08	+.7	1.00	7	9.0	s.	37	n.	28	6	13	11	5.9	.0	.0	5
FLORIDA PENINSULA							77.3	+3.8										78	1.71	−0.6											3.6			
Key West [2]	21	10	64	1,015.9	1,016.9	+.3	79.9	+4.2	88	29	85	70	7	75	14	0	71	79	1.14	−.2	.97	4	10.4	e.	22	e.	16	25	5	0	2.4	.0	.0	1
Miami [2]	25	242	249	1,016.3	1,017.6	+.7	76.0	+2.1	85	30	79	62	8	73	17	0	67	78	2.44	−1.0	1.99	5	14.2	se.	31	se.	1	17	13	0	3.2	.0	.0	3
Tampa [1]	35	6	43	1,016.3	1,018.0	.0	76.0	+5.1	90	27	85	57	11	67	28	0	66	78	1.55	−.5	.96	4	11.9	sw.	32	sw.	28	9	14	17	5.1	.0	.0	2
EAST GULF							67.4	+2.6										76	7.43	+3.3											5.3			
Atlanta [1]	1,173	33	72	976.6	1,018.0	+1.1	63.7	+2.6	88	14	75	36	7	53	32	103	49	66	8.10	+4.4	3.64	11	10.6	e.	41	se.	24	9	10	11	5.6	.0	.0	5
Macon [2]	370	79	87	1,004.4	1,018.0	+1.1	66.6	+2.7	88	26	78	38	7	55	33	61	53	68	7.32	+4.2	2.32	10	7.1	s.	40	nw.	28	9	10	11	5.4	.0	.0	6
Thomasville	273	49	58	1,008.1	1,018.3	+1.4	70.0	+3.3	88	15	81	44	7	59	30	30	---	---	10.91	+7.6	2.76	11	----	----------	---	----------	---	---	8	10	12	----	.0	.0	7
Apalachicola	35	11	51	1,015.9	1,017.3	----	70.7	+3.6	82	24	77	49	6	64	23	17	64	80	3.60	+.8	1.46	8	10.1	se.	31	se.	2	10	8	12	5.8	.0	.0	5
Pensacola	56	54	79	1,015.6	1,017.6	+1.0	69.6	+2.9	88	26	77	46	7	62	26	28	62	82	7.25	+3.2	3.61	10	8.9	s.	32	s.	1	13	7	10	4.9	.0	.0	5
Anniston	741	9	---	----------	----------	----------	64.6	+3.4	86	15	77	39	7	52	37	93	---	---	5.47	+1.1	1.38	8	----	se.	---	----------	---	14	6	10	----	.0	.0	5
Birmingham [1]	700	5	62	992.9	1,017.6	+1.0	63.5	+1.8	86	15	76	39	30	51	34	111	52	70	6.20	------	2.12	11	8.3	se.	42	sw.	1	10	11	9	5.1	.0	.0	6
Mobile [3]	57	86	161	1,015.2	1,017.3	+.7	69.0	+2.7	89	26	78	44	6	60	30	36	60	80	8.53	+3.9	3.83	9	7.7	s.	27	e.	1	10	9	11	5.3	.0	.0	7
Montgomery [2]	218	92	105	1,009.8	1,018.0	+1.1	67.4	+2.1	87	15	77	43	7	57	29	58	58	79	10.14	+5.8	4.48	10	7.4	se.	35	nw.	28	15	4	11	4.7	.0	.0	7
Meridian [2]	375	67	92	1,003.4	1,016.9	+.3	66.0	+2.0	86	25	77	40	5	55	34	66	54	76	10.60	+5.8	4.68	8	6.8	s.	32	s.	1	13	10	7	4.5	.0	.0	6
Vicksburg [2]	247	82	102	1,007.5	1,016.3	+.4	66.8	+1.2	86	3	76	43	5	58	26	58	56	81	3.69	−1.5	2.18	7	9.5	se.	25	sw.	1	7	12	11	5.8	.0	.0	6
New Orleans [4]	53	50	84	1,014.2	1,016.3	+.4	70.8	+3.0	90	26	79	46	6	63	24	29	62	78	6.11	+.9	3.74	6	8.3	se.	26	se.	1	6	12	12	6.0	.0	.0	3
WEST GULF							67.3	+0.4										77	4.83	+1.0											6.2			
Shreveport [1]	249	5	64	1,006.1	1,014.9	.0	66.8	+2.0	86	25	76	40	5	57	31	51	57	76	6.47	+1.8	3.30	9	10.9	se.	36	n.	1	9	6	15	6.0	.0	.0	6
Fort Smith	463	57	82	998.0	1,013.9	−.7	62.4	+.6	86	3	72	35	5	53	36	132	52	72	7.35	+3.4	2.20	18	9.5	e.	49	n.	14	2	8	20	7.5	.0	.0	13
Little Rock [1]	357	26	58	1,002.7	1,015.6	+.4	63.9	+1.8	85	13	73	37	5	54	32	104	53	73	6.61	+1.4	2.48	16	9.8	se.	33	s.	4	4	12	14	7.0	.0	.0	10
Austin [1]	605	10	41	992.2	1,013.2	----	66.0	−1.8	86	25	76	36	5	56	34	63	56	76	4.11	−.2	1.89	8	10.3	s.	34	w.	1	9	7	14	5.8	.0	.0	6
Brownsville [1]	57	5	54	1,009.5	1,011.2	----	75.2	+1.5	98	25	84	51	5	67	34	14	66	78	1.23	−.5	1.00	6	13.9	se.	40	se.	15	9	10	11	5.7	.0	.0	3
Corpus Christi [1]	20	4	33	1,011.9	1,012.5	−1.7	71.8	+2.8	91	25	80	45	6	64	28	31	63	80	3.65	------	2.67	6	14.0	se.	40	se.	12	8	6	16	6.2	.0	.0	5
Dallas [1]	512	5	45	995.6	1,013.9	----	63.7	−1.4	88	25	74	34	5	54	33	107	55	77	3.05	−1.2	.94	9	12.2	s.	35	nw.	3	7	11	12	6.1	.0	.0	6
Fort Worth [1]	679	40	56	989.8	1,013.5	−.4	63.0	−1.1	87	25	72	35	5	54	34	115	54	76	2.87	−1.2	.85	11	12.2	se.	34	se.	1	6	10	14	6.5	.0	.0	4
Galveston [2]	54	106	114	1,012.2	1,013.9	−1.0	70.0	+1.3	80	24	74	45	5	66	20	33	64	83	4.30	+1.2	1.72	6	13.1	se.	34	se.	1	6	10	14	6.5	.0	.0	3
Houston [2]	138	157	190	1,009.1	1,013.9	----	69.6	+.3	90	25	78	41	5	61	28	36	60	80	4.21	+.6	1.93	5	12.6	se.	33	se.	10	9	10	11	5.7	.0	.0	3
Palestine	510	64	72	996.6	1,014.9	+.3	65.5	−.5	87	25	75	37	5	56	30	69	54	70	2.21	−2.2	1.98	10	8.7	s.	29	sw.	1	9	8	13	5.6	.0	.0	3
Port Arthur [2]	34	59	124	1,013.2	1,014.6	----	69.8	+1.3	84	23	76	42	5	63	24	34	62	82	12.59	+9.6	5.25	10	15.9	se.	43	se.	1	11	10	9	5.2	.0	.0	6
San Antonio [1]	693	8	51	988.5	1,012.9	−.6	67.2	−1.9	91	25	79	34	5	56	39	61	57	74	2.91	−.3	.83	7	10.2	se.	40	nw.	15	7	8	15	6.3	.0	.0	6
OHIO VALLEY AND TENNESSEE							57.0	+3.0										72	4.60	+0.9											6.4			
Chattanooga [1]	762	6	66	990.5	1,018.3	+1.4	61.5	+3.9	85	14	74	32	7	49	41	140	52	76	6.40	+1.6	1.95	9	7.6	s.	36	sw.	16	10	8	12	5.7	.0	.0	5
Knoxville [1]	995	27	53	982.7	1,018.6	+.6	60.4	+3.1	85	15	72	34	7	48	38	178	50	72	4.56	+.4	1.49	12	7.7	ne.	40	sw.	16	10	9	11	5.5	.0	.0	4
Memphis [4]	399	5	86	1,002.0	1,016.3	+.4	63.4	+1.6	85	3	73	36	6	54	32	135	53	74	5.99	+1.2	1.84	12	8.2	s.	36	w.	16	6	11	13	6.5	.0	.0	8
Nashville [1]	546	5	72	997.6	1,017.6	+1.3	61.3	+2.3	84	15	73	34	6	50	30	106	48	70	5.51	+1.4	1.75	12	9.0	s.	31	s.	16	7	10	13	6.3	.0	.0	6

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS

District and station	Elevation of instruments: Barometer above sea level	Thermometer above ground	Anemometer above ground	Pressure: Station	Sea level	Departure from normal	Temperature of the air: Mean	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Total degree days ■	Mean temperature of the dew-point	Mean relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more	Wind: Average hourly velocity	Prevailing direction	Maximum velocity: Miles per hour	Direction	Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
OHIO VALLEY AND TENNESSEE—Con.	*Ft.*	*Ft.*	*Ft.*	*Mbs.*	*Mbs.*	*Mbs.*	°*F*	°*F*	°*F*		°*F*	°*F*		°*F*	°*F*		°*F*	%	*In.*	*In.*	*In.*		*Mi.*								*0–10*	*In.*	*In.*	
Lexington [1]	989	4	28	982.1	1,018.6	+2.0	57.1	+2.8	82	12	68	31	6	47	32	260	46	70	4.16	+.7	.98	14	----	s.	---	-------	--	7	8	15	6.6	.0	.0	2
Louisville [2]	525	106	120	998.3	1,017.3	+1.0	58.2	+1.8	81	13	68	35	6	49	31	230	46	71	3.93	.0	.97	13	9.1	s.	42	s.	16	7	11	12	6.0	.0	.0	5
Evansville [1]	431	11	40	1,001.4	1,016.9	+1.0	57.2	+2.3	80	11	67	30	6	47	34	249	46	73	5.23	+1.3	1.63	13	9.6	s.	34	s.	16	5	7	18	7.0	T	.0	6
Indianapolis [1]	823	5	54	987.1	1,017.3	+1.4	52.6	+1.8	80	10	63	27	6	42	34	376	42	73	5.11	------	1.44	14	12.3	se.	40	w.	18	3	10	17	7.2	T	.0	5
Terre Haute [2]	575	68	149	996.3	1,017.3	-----	55.0	+1.3	79	11	64	34	5	46	31	309	44	72	4.97	+1.3	1.52	13	11.5	s.	45	sw.	16	5	11	14	6.7	T	.0	6
Cincinnati [2]	627	11	51	994.9	1,018.3	+2.0	56.3	+3.9	84	11	67	30	6	46	35	274	45	72	5.10	+2.0	1.98	12	7.5	s.	26	w.	5	7	8	15	6.3	T	.0	5
Columbus [2]	822	90	110	988.2	1,018.3	+1.7	54.3	+3.1	83	11	65	30	6	44	33	332	43	74	5.52	+2.6	1.66	12	10.8	s.	44	s.	4	7	7	16	6.6	T	.0	4
Dayton [1]	1,003	6	55	981.4	1,018.0	-----	53.0	+2.5	79	11	63	28	6	43	31	365	42	71	3.17	.0	.81	12	12.9	s.	44	s.	16	3	9	18	7.3	T	.0	5
Elkins [1]	1,947	4	45	949.5	1,019.3	+2.4	53.6	+6.2	81	13	67	22	6	40	47	346	42	72	2.50	−1.1	.82	12	8.3	nw.	39	nw.	2	5	10	15	6.6	T	.0	5
Parkersburg	637	77	84	995.3	1,018.6	+1.7	56.8	+3.4	84	11	69	28	6	44	37	268	44	68	3.55	+.4	.95	14	7.0	se.	32	w.	4	7	16	7	5.7	T	.0	7
Pittsburgh [1]	842	39	54	987.5	1,018.3	+1.7	54.4	+5.2	83	12	66	29	6	43	34	333	40	66	3.81	+.9	.98	13	11.3	sw.	47	nw.	4	8	8	14	5.9	T	.0	5
LOWER LAKES							50.4	+5.5										70	3.06	+0.5											6.7			
Buffalo [1]	768	34	96	988.8	1,017.6	+1.3	49.8	+6.0	86	11	60	28	22	40	31	476	38	70	3.15	+.6	.68	11	15.0	sw.	45	w.	18	4	9	17	6.8	T	.0	3
Canton	448	10	61	999.7	1,016.3	-----	48.8	+6.9	84	13	59	24	23	39	32	491	36	66	3.59	+1.4	.80	15	19.1	w.	33	sw.	5	7	7	16	6.9	1.6	.0	1
Oswego	335	71	85	1,004.7	1,017.6	+1.3	49.2	+6.6	85	13	58	31	15	41	37	478	37	68	2.58	+.2	.60	12	9.9	w.	28	se.	4	8	8	14	6.2	.2	.0	4
Rochester [1]	523	5	69	998.0	1,017.3	+1.0	50.4	+6.9	86	13	61	28	22	40	36	457	38	70	2.16	−.2	.53	11	12.0	w.	48	w.	5	4	9	17	7.3	.4	.0	3
Syracuse [1]	596	5	57	995.3	1,018.0	+1.7	50.8	+7.8	85	13	62	28	23	40	34	435	39	70	3.50	+1.0	1.03	15	11.9	sw.	40	se.	4	4	8	18	7.2	.2	.0	2
Erie [2]	714	57	81	991.5	1,018.0	+1.4	51.6	+6.5	85	11	60	32	5	43	33	419	40	76	3.62	+.9	.86	15	9.4	w.	28	se.	16	5	11	14	6.5	.7	.0	6
Cleveland [1]	762	27	54	989.5	1,018.0	+1.4	52.0	+5.8	83	10	63	29	6	41	37	404	39	70	3.66	+1.2	.84	14	12.5	s.	40	sw.	17	5	9	16	6.8	T	.0	6
Sandusky	629	5	67	994.2	1,017.6	+1.0	52.0	+4.8	85	11	62	30	6	42	38	399	----	---	2.19	−.4	.69	11	10.4	sw.	31	sw.	4	7	8	15	6.5	T	.0	4
Toledo [1]	628	5	47	993.9	1,017.6	+1.3	50.2	+4.0	83	11	61	28	28	39	37	447	40	72	2.43	−.2	1.11	9	14.1	sw.	39	s.	16	8	15	7	5.4	T	.0	2
Fort Wayne [1]	857	5	33	985.4	1,016.9	-----	50.0	+1.3	80	11	60	29	6	40	35	450	40	73	3.40	+.3	1.55	13	11.2	sw.	36	w.	4	3	8	19	7.5	T	.0	3
Detroit [1]	730	5	78	990.2	1,017.3	+.7	50.0	+4.4	80	11	59	29	5	41	35	448	38	68	3.37	+.9	1.44	9	11.8	sw.	36	n.	5	6	5	19	7.0	.2	.0	3
UPPER LAKES							43.8	+2.5										72	3.37	+0.9											7.1			
Alpena	609	5	89	993.2	1,015.9	−.7	43.5	+4.9	79	10	52	24	22	35	34	642	32	71	2.44	+.2	1.03	15	13.3	nw.	38	sw.	4	3	16	11	6.5	3.5	.0	3
Escanaba	612	51	72	992.6	1,015.6	−1.0	39.0	+1.1	57	11	46	25	15	32	25	780	30	74	3.74	+1.5	1.23	16	13.5	s.	40	n.	2	5	10	15	6.9	5.5	.0	1
Grand Rapids [2]	707	70	244	990.2	1,016.6	.0	49.6	+2.6	81	11	59	29	5	40	33	470	36	67	3.52	+.8	1.17	14	15.0	s.	55	sw.	4	6	12	12	6.5	T	.0	2
Lansing [2]	878	5	90	984.1	1,016.6	-----	48.4	+2.8	81	11	58	28	6	38	37	499	36	65	3.48	+.9	1.41	16	10.9	sw.	30	sw.	16	4	11	15	6.8	.9	.0	2
Marquette	734	44	73	987.1	1,015.2	−1.4	40.1	+2.3	81	10	48	23	15	32	42	754	30	72	3.56	+1.1	1.49	15	10.6	n.	34	s.	9	4	6	20	7.7	9.0	.0	1
Sault Sainte Marie [1]	614	11	52	992.2	1,015.2	−1.7	39.6	+3.1	79	11	49	21	6	30	36	760	30	74	2.16	.0	.48	16	14.6	nw.	52	sw.	4	5	6	19	7.3	11.4	T	1
Chicago [1]	673	5	36	991.5	1,016.3	+.4	49.8	+2.9	81	11	59	29	27	40	31	464	38	72	4.20	+1.7	1.47	14	13.0	s.	37	sw.	4	2	8	20	7.8	T	.0	3
Green Bay	617	90	123	992.2	1,015.2	−1.1	45.4	+2.2	78	10	54	27	3	36	32	589	34	69	4.42	+1.8	2.00	12	13.6	s.	42	s.	4	3	7	20	7.6	T	.0	3
Milwaukee [1]	681	33	66	990.5	1,015.9	+.3	46.4	+4.2	80	11	56	27	19	37	31	562	36	73	2.89	+.2	.85	13	17.8	sw.	56	sw.	4	1	13	16	7.3	T	.0	3
Duluth [3]	1,133	5	47	972.9	1,014.9	−1.4	36.2	−.8	63	9	45	20	21	28	29	864	26	78	3.30	+1.2	.93	14	12.8	ne.	37	nw.	4	8	9	13	6.3	9.4	.0	1
NORTH DAKOTA							38.6	−1.9										68	1.02	−0.6											6.9			
Fargo [1]	940	5	43	980.0	1,014.9	−.7	39.2	−1.4	70	8	49	23	14	30	34	773	31	76	2.03	−.2	.66	9	14.0	n.	34	n.	16	4	13	13	6.9	4.1	.0	2
Bismarck [1]	1,677	5	43	953.6	1,015.2	+.3	40.0	−.4	72	27	52	20	4	28	43	752	28	66	.98	−.5	.45	6	14.2	nw.	42	nw.	17	5	11	14	6.8	5.6	.0	1
Devils Lake	1,478	11	44	961.1	1,015.9	+.3	36.6	−2.2	69	27	46	21	3	28	36	852	26	70	.66	−.9	.28	8	11.0	nw.	31	nw.	17	4	8	18	7.1	3.0	.0	3
Grand Forks [1]	832	4	41	983.4	1,014.6	-----	36.8	------	66	28	47	13	21	27	39	846	28	---	1.18	------	.89	9	----	n.	---	-------	--	2	11	17	----	2.5	.0	2
Williston	1,878	42	50	946.8	1,014.6	.0	38.4	−3.6	68	27	49	16	4	27	40	800	24	60	.43	−.8	.20	7	9.2	nw.	28	nw.	17	4	11	15	6.7	3.2	.0	0
UPPER MISSISSIPPI							50.8	+0.7										69	4.56	+1.6											7.0			
Minneapolis - St. Paul [1]	919	43	74	980.0	1,013.9	−1.7	43.9	−2.5	75	10	53	25	4	35	32	634	34	68	2.95	+.7	.76	12	14.0	se.	40	sw.	1	2	9	19	7.5	6.0	.0	3
Springfield, Minn	1,025	4	42	977.3	1,014.9	-----	44.0	------	77	9	55	23	5	33	41	628	32	66	2.22	------	1.31	6	----	nw.	---	-------	--	4	7	19	----	2.5	.0	1
La Crosse [1]	714	5	29	988.2	1,014.6	−.6	45.2	−.4	76	10	54	26	27	36	34	593	35	70	3.83	+1.4	1.29	11	11.9	s.	38	s.	16	5	9	16	7.1	8.9	.0	3
Madison [2]	974	70	78	979.7	1,015.9	+.3	47.0	+1.6	77	10	56	28	19	38	27	541	36	70	2.93	+.2	1.06	11	10.5	sw.	29	sw.	4	4	10	16	7.3	T	.0	4
Charles City	1,015	10	51	978.3	1,015.6	+.4	45.9	−.5	77	10	56	22	5	36	34	574	----	---	4.57	+2.0	1.52	12	8.4	se.	26	sw.	16	8	9	13	6.1	6.1	.0	2
Moline [1]	606	6	50	993.6	1,015.9	+.7	51.6	+2.8	80	10	61	31	5	42	32	408	39	68	3.88	+1.2	.98	14	13.8	s.	52	sw.	11	3	8	19	7.4	T	.0	4
Des Moines [2]	860	5	99	984.1	1,015.6	+.7	50.2	+.1	77	10	60	28	4	41	37	451	37	66	5.26	+2.4	2.00	10	12.9	n.	33	sw.	9	8	5	17	6.6	.6	.0	9
Dubuque	699	60	79	989.8	1,015.2	.0	49.6	+1.0	79	10	59	30	5	40	28	466	38	67	3.61	+.8	1.49	10	7.4	s.	22	sw.	11	3	12	15	7.0	T	.0	5
Burlington [1]	702	4	36	989.8	1,015.9	+.7	51.1	−.3	78	10	62	28	5	40	33	415	40	72	4.11	+.9	1.15	13	13.5	s.	41	sw.	16	5	5	20	7.3	T	.0	6
Cairo	357	5	99	1,003.7	1,016.6	+1.0	61.4	+2.3	81	13	70	38	5	53	32	141	----	---	8.27	+4.6	2.31	14	9.2	s.	29	sw.	25	7	8	15	6.6	.0	.0	7
Peoria [1]	609	6	26	994.2	1,016.6	+1.0	51.6	+1.7	76	10	61	31	5	42	30	404	41	72	5.58	+2.2	1.06	14	13.5	s.	36	sw.	16	6	8	16	6.9	T	.0	3
Springfield, Ill. [3]	636	5	191	992.9	1,016.6	+1.4	54.7	+2.0	80	11	64	33	5	46	30	321	44	76	4.62	+1.1	1.44	16	13.9	s.	36	w.	4	4	7	19	7.4	T	.0	8
St. Louis [2]	568	35	303	996.3	1,016.9	+1.7	57.0	+.9	78	11	65	34	4	48	35	253	44	70	5.40	+1.6	1.81	16	13.4	s.	43	sw.	16	4	9	17	6.9	T	.0	6
MISSOURI VALLEY							50.4	−0.9										70	5.43	+2.5											7.0			
Columbia, Mo [3]	784	6	66	987.1	1,015.2	.0	55.0	+.2	80	10	65	29	5	45	35	311	42	70	6.36	+2.6	1.63	18	8.8	s.	27	sw.	16	6	10	14	6.5	T	.0	7
Kansas City [1]	963	39	76	980.0	1,014.9	+.3	54.4	−.4	80	20	63	30	5	45	34	326	42	68	6.63	+3.1	2.37	15	12.9	ne.	42	sw.	16	6	5	19	7.4	T	.0	3
St. Joseph [2]	967	11	49	979.7	1,014.9	-----	52.6	−.9	81	20	62	28	5	43	35	376	42	72	6.36	+3.2	2.75	15	10.4	s.	32	w.	16	14	8	8	4.7	T	.0	3
Springfield, Mo. [1]	1,324	5	67	967.8	1,015.2	+.3	55.4	+.2	77	13	65	28	5	46	31	291	46	77	12.15	+8.3	2.54	19	11.6	se.	46	sw.	16	3	6	21	7.7	T	.0	11
Topeka	987	65	87	979.3	1,015.2	-----	53.6	−1.1	83	20	63	29	5	44	37	347	43	74	8.58	+5.8	4.12	14	10.6	s.	32	s.	9	3	9	18	7.5	T	.0	7
Lincoln [2]	1,189	11	81	971.2	1,014.6	+.7	50.0	−1.5	82	20	60	20	5	40	40	448	39	76	4.17	+1.6	1.39	12	11.5	s.	43	nw.	16	7	5	18	7.2	10.5	.0	4
Omaha [1]	1,105	5	68	974.6	1,014.9	+.7	50.0	−1.0	80	20	60	20	5	40	38	454	38	69	5.35	+2.8	1.94	12	14.5	s.	39	nw.	16	4	8	18	7.1	8.6	.0	4
Valentine	2,598	46	54	922.1	1,014.6	+.7	42.8	−2.9	79	8	54	14	4	32	39	666	28	63	.87	−1.0	.68	8	10.6	n.	31	n.	16	2	11	17	7.3	3.1	.0	1
Sioux City [1]	1,138	5	40	973.2	1,014.6	+.4	46.8	−.4	80	22	59	16	5	35	42	548	36	68	2.56	−.1	1.01	9	13.4	s.	35	s.	10	3	11	16	7.2	6.0	.0	1
Huron [1]	1,301	5	41	967.5	1,015.2	+.6	43.7	−1.4	86	8	56	17	5	31	50	638	29	64	1.29	−1.0	.76	6	15.0	n.	40	s.	8	3	11	16	7.2	3.5	.0	4
NORTHERN SLOPE							39.4	−4.6										65	1.87	+0.4											7.8			
Billings [1]	3,570	16	40	889.6	1,015.2	-----	41.2	−4.8	74	21	51	9	3	31	33	715	28	64	.64	------	.23	10	11.4	sw.	35	ne.	1	2	6	22	8.0	3.9	.0	1
Havre	2,507	11	67	925.5	1,015.9	+2.4	39.6	−4.1	73	30	51	7	2	28	42	764	26	62	.98	.0	.51	6	9.0	sw.	32	w.	21	1	8	21	8.1	3.6	.0	0
Helena [1]	4,124	5	43	872.0	1,015.9	+1.0	39.2	−4.3	71	20	50	5	2	28	33	774	26	64	.58	−.5	.27	9	10.4	w.	33	nw.	21	0	9	21	8.0	3.7	.0	0
Missoula [1]	3,263	4	32	901.8	1,017.3	-----	40.6	−3.3	72	20	50	15	2	31	34	730	31	72	2.00	+1.1	.50	13	7.1	nw.	29	sw.	27	0	3	27	8.7	2.5	.0	0
Kalispell	2,973	48	56	910.6	1,014.9	+.3	39.6	−4.0	66	20	48	14	2	31	29	764	28	66	1.21	+.4	.44	16	6.0	w.	24	w.	21	0	9	21	8.1	2.9	.0	1
Miles City [1]	2,371	5	78	930.2	1,015.2	+.6	41.8	------	79	21	54	15	4	30	42	697	26	63	.59	------	.20	7	----	nw.	---	-------	--	1	7	22	8.1	1.9	.0	1
Rapid City [1]	3,259	5	63	899.8	1,015.2	+1.0	40.6	−3.5	80	21	53	9	3	28	42	732	26	62	.50	−.9	.18	9	16.2	nw.	51	nw.	9	4	10	16	7.1	2.8	.0	1
Cheyenne [1]	6,094	5	40	809.7	1,014.9	+2.0	34.8	−6.1	73	21	46	−1	4	23	40	908	23	68	3.08	+1.1	.99	12	12.0	nw.	32	nw.	30	1	9	20	7.7	26.2	.0	2
Lander	5,352	60	68	833.1	1,015.9	+2.0	33.4	−9.0	68	30	46	−7	3	21	39	948	22	64	5.02	+3.0	1.85	9	5.3	sw.	41	sw.	8	5	11	14	6.7	58.9	.0	0
Sheridan [1]	3,790	5	38	882.5	1,015.9	-----	39.2	−4.1	74	30	51	2	3	27	40	774	24	62	1.41	−.5	.42	12	9.8	nw.	46	nw.	21	4	4	22	7.8	5.6	.0	1
North Platte [3]	2,821	11	51	914.3	1,013.9	+.7	45.8	−2.8	83	9	57	17	4	34	40	575	31	66	2.01	.0	.79	13	9.6	nw.	32	n.	16	1	11	18	7.6	7.4	.0	5

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Mean	Temperature of the air: Departure from normal	Temperature of the air: Maximum	Temperature of the air: Date	Temperature of the air: Mean maximum	Temperature of the air: Minimum	Temperature of the air: Date	Temperature of the air: Mean minimum	Temperature of the air: Greatest daily range	Total degree days	Mean temperature of the dew-point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: Days with 0.01 inch or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
	Ft.	*Ft.*	*Ft.*	*Mbs.*	*Mbs.*	*Mbs.*	°F	°F	°F		°F	°F		°F	°F		°F	%	*In.*	*In.*	*In.*		*Mi.*								*0–10*	*In.*	*In.*	
MIDDLE SLOPE							51.0	−3.1										70	4.98	+2.4											6.9			
Denver [2]	5,292	106	113	834.7	1,013.2	+.7	42.2	−4.9	77	21	53	11	4	32	33	683	26	64	2.58	+.5	.85	6	13	8.0	s.	26	n	9	12	8	10	5.6	28.2	.0	9
Pueblo [1]	4,690	5	36	853.7	1,012.5	+.6	44.8	−4.6	84	21	59	4	4	30	45	605	26	58	1.53	+.2	.48	8	12	9.6	sw.	37	sw.	12	7	10	13	6.1	9.3	.0	2
Concordia	1,392	50	58	964.4	1,014.6	+1.1	50.7	−2.8	83	20	60	24	5	41	37	435	40	72	4.73	+2.4	1.78	12	9.7	s.	34	nw.	16	4	9	17	7.2	4.0	.0	5
Dodge City [1]	2,509	5	58	925.2	1,012.9	+.4	50.2	−3.4	88	9	62	17	4	38	40	459	37	68	3.84	+1.9	.97	11	16.7	s.	50	nw.	16	6	9	15	6.6	5.0	.0	9
Wichita [1]	1,358	6	64	965.5	1,013.9	+.4	53.0	−3.4	78	21	62	27	4	44	27	371	44	75	6.79	+3.9	1.81	12	15.6	s.	42	s.	7	3	10	17	7.4	T	.0	6
Oklahoma City [2]	1,214	10	47	970.5	1,013.9	+.7	58.0	−1.8	83	20	67	29	4	49	29	243	49	76	7.00	+3.7	2.45	11	9.3	s.	28	s.	9	3	11	16	7.5	.0	.0	4
Tulsa [1]	674	10	60	989.8	1,013.5	-----	58.4	−.5	81	20	68	30	5	49	39	219	49	76	8.41	+4.2	2.88	14	11.7	s.	40	w.	16	2	6	22	7.9	.0	.0	7
SOUTHERN SLOPE							59.7	−2.3										58	1.08	−0.7											5.2			
Abilene [1]	1,738	4	59	951.6	1,011.9	−.6	60.6	−2.4	86	25	73	29	5	48	40	155	48	70	2.29	−.4	.92	9	14.7	s.	43	sw.	10	8	9	13	5.9	.0	.0	6
Amarillo [1]	3,676	5	42	887.2	1,012.9	+1.4	51.2	−2.6	86	9	66	14	4	37	47	414	34	63	1.58	−.2	.64	10	15.9	se.	54	s.	10	7	11	12	5.9	1.7	.0	6
Del Rio	960	63	71	977.7	1,010.5	−1.7	70.7	+.1	96	25	83	36	6	59	44	50	50	55	.29	−1.5	.29	1	10.7	se.	31	nw.	15	12	10	8	4.8	.0	.0	4
Roswell	3,566	75	85	889.6	1,010.2	−.6	56.4	−4.2	87	8	73	20	4	40	52	264	30	42	.15	−.7	.06	4	10.2	s.	37	s.	2	12	12	6	4.4	T	.0	2
SOUTHERN PLATEAU							59.2	−0.9										35	0.24	−0.3											3.1			
El Paso [1]	3,778	39	85	883.2	1,008.8	−1.4	61.8	−.5	90	30	75	33	6	48	39	148	31	34	T	−.3	T	0	13.9	w.	40	sw.	3	19	8	3	3.1	T	.0	1
Albuquerque [1]	5,314	5	45	834.4	1,009.1	-----	52.3	−1.7	83	30	67	19	4	38	42	379	22	38	.77	+.2	.53	3	12.1	n.	50	s.	9	15	7	8	4.2	2.0	.0	1
Flagstaff	6,907	36	51	787.7	1,013.9	+3.4	42.0	−1.3	78	30	58	10	11	26	46	692	18	45	.55	−.8	.33	6	----	nw.	----	----	----	19	6	5	3.5	4.7	.0	0
Phoenix [2]	1,107	39	87	972.2	1,010.2	−1.3	66.4	−.6	99	29	82	39	4	51	43	89	28	30	T	−.4	T	0	7.7	e.	26	w.	9	20	6	4	2.8	.0	.0	0
Tucson [1]	2,555	5	39	923.5	1,010.5	-----	63.4	−1.0	95	29	79	27	4	48	42	137	28	29	.11	−.2	.11	1	----	sw.	----	----	----	17	9	4	3.4	.0	.0	0
Yuma	142	9	54	1,006.4	1,010.8	−1.4	69.2	−.3	101	29	86	41	4	53	42	59	34	34	T	−.1	T	0	6.7	sw.	33	n.	22	25	4	1	1.7	.0	.0	0
MIDDLE PLATEAU							45.3	−2.5										50	0.65	−0.2											5.8			
Reno [1]	4,527	20	52	863.2	1,016.9	+2.0	45.6	−.5	85	30	64	13	13	28	50	580	26	52	.31	−.2	.17	4	9.1	n.	54	sw.	8	14	6	10	5.0	T	.0	1
Tonopah	6,090	9	20	812.1	1,012.5	-----	46.2	−1.5	77	29	59	15	2	33	34	563	22	45	T	−.5	T	0	----	nw.	----	----	----	12	11	7	----	T	.0	0
Winnemucca	4,339	5	56	868.3	1,016.3	+1.7	44.1	−2.6	80	30	59	17	4	29	44	627	24	50	.46	−.4	.18	6	8.4	sw.	34	sw.	7	10	8	12	5.7	1.2	.0	1
Modena	5,473	10	46	831.4	1,011.5	−.4	43.4	−2.6	81	30	59	14	4	28	46	650	----	----	.52	−.4	.23	7	9.6	w.	33	s.	8	12	12	6	4.9	4.5	.0	0
Salt Lake City [1]	4,227	32	58	865.6	1,014.2	+1.0	44.8	−3.1	80	20	56	18	3	34	36	604	28	54	1.37	−.3	.85	8	10.3	se.	35	s.	8	5	12	13	6.8	6.8	.0	0
Grand Junction	4,602	60	68	856.4	1,011.2	−.7	47.8	−4.6	81	30	60	15	4	36	39	513	25	50	1.25	+.4	.64	9	7.0	n.	29	s.	9	7	9	14	6.5	6.6	.0	4
NORTHERN PLATEAU							46.2	−2.7										58	0.85	−0.3											6.6			
Baker [2]	3,471	36	54	896.4	1,018.0	+2.1	42.2	−3.0	76	20	54	20	9	30	40	685	28	64	.25	−.8	.08	7	7.0	n.	26	sw.	5	3	13	14	6.7	2.2	.0	1
Boise [1]	2,739	5	49	920.1	1,016.3	+1.1	46.0	−3.1	83	20	58	24	9	34	34	568	28	52	.47	−.7	.27	4	11.3	nw.	33	nw.	11	5	10	15	6.4	T	.0	1
Pocatello [1]	4,478	5	31	861.5	1,015.6	+1.7	42.6	−2.3	77	20	54	12	3	31	40	675	25	54	.61	−.9	.23	8	12.3	sw.	30	sw.	8	5	8	17	7.0	4.7	.0	0
Spokane [1]	1,929	27	42	947.2	1,016.6	+1.0	44.7	−3.7	73	20	55	22	2	34	35	608	30	60	1.12	−.0	.58	10	8.7	sw.	34	w.	27	1	12	17	7.4	1.0	.0	0
Walla Walla	991	57	65	982.4	1,018.3	+2.0	51.0	−2.1	74	20	60	32	2	42	27	421	----	----	2.06	+.6	.92	12	7.1	sw.	27	sw.	15	6	18	6	5.9	.1	.0	0
Yakima	1,076	58	67	978.7	1,017.3	-----	50.4	−2.1	77	20	62	31	10	39	33	439	----	----	.56	+.1	.48	5	7.3	nw.	29	n.	15	6	14	10	6.2	T	.0	0
NORTH PACIFIC COAST							48.9	−0.9										73	2.98	−0.1											7.3			
North Head	211	5	55	1,014.6	1,022.0	+4.4	46.4	−1.1	55	18	50	36	7	42	14	563	41	82	3.32	−.8	.87	22	15.6	nw.	52	s.	4	1	3	26	8.4	T	.0	0
Seattle [2]	125	90	321	1,016.3	1,020.7	+3.8	48.8	−2.3	69	20	56	36	9	42	22	485	38	70	3.03	+.6	.91	17	10.1	s.	40	w.	6	2	14	14	7.0	.0	.0	1
Tacoma	194	172	201	1,013.9	1,020.7	+3.8	47.8	−.9	69	20	55	33	2	41	23	513	----	----	2.94	+.2	.83	16	9.8	sw.	34	sw.	6	1	14	15	7.3	1.0	.0	1
Tatoosh Island	86	9	61	1,017.6	1,020.7	+5.1	45.4	−.7	54	1	49	36	6	42	11	587	40	84	5.70	+.1	1.43	22	13.5	w.	46	s.	27	6	4	20	7.4	T	.0	0
Medford [1]	1,329	29	58	973.6	1,021.3	+3.3	51.3	−.8	86	19	65	25	2	38	46	412	36	62	.43	−.9	.21	4	----	n.	----	----	----	7	11	12	6.0	T	.0	0
Portland, Oreg. [2]	154	68	106	1,016.6	1,021.7	+3.7	51.4	−.4	74	20	59	35	2	44	25	406	40	72	2.95	+.1	1.23	15	7.2	nw.	22	sw.	6	1	7	22	8.2	.0	.0	0
Roseburg	510	45	76	1,004.1	1,022.7	+4.4	51.0	.0	78	30	60	30	2	42	34	419	40	70	2.51	+.2	.58	15	4.6	n.	18	w.	7	4	12	14	6.6	T	.0	0
MIDDLE PACIFIC COAST							56.7	+1.2										63	0.74	−1.3											4.2			
Eureka	60	72	88	1,021.7	1,023.7	+4.1	48.0	−1.9	58	6	53	35	4	43	17	512	43	84	2.27	−1.1	1.55	10	9.5	n.	32	n.	1	7	8	15	6.2	.0	.0	0
Red Bluff	353	5	26	1,004.7	1,016.9	-----	62.0	+3.0	95	30	76	37	4	48	37	171	34	39	.27	−1.4	.20	2	9.6	nw.	33	n.	1	16	7	7	4.4	.0	.0	0
Sacramento	66	92	115	1,014.6	1,016.3	.0	60.7	+2.6	92	30	74	37	9	47	36	180	39	54	.08	−1.4	.08	1	8.7	nw.	36	nw.	1	18	8	4	2.9	.0	.0	0
San Francisco [2]	155	112	132	1,012.9	1,018.0	+.4	55.9	+.9	77	23	63	44	9	49	27	275	44	74	.32	−1.3	.30	2	9.7	w.	29	w.	5	17	10	3	3.2	.0	.0	0
SOUTH PACIFIC COAST							59.6	+0.1										60	0.08	−0.8											4.2			
Fresno [1]	327	5	34	1,004.1	1,015.6	.0	61.0	+.8	95	30	77	34	2	45	40	187	39	52	.12	−.8	.12	1	7.0	nw.	32	nw.	1	20	6	4	3.2	.0	.0	0
Los Angeles	338	223	250	1,004.1	1,015.6	.0	59.4	.0	81	7	68	43	9	50	26	178	40	58	.08	−1.0	.08	1	7.1	w.	27	n.	2	17	6	7	4.1	.0	.0	0
San Diego [1]	87	20	55	1,013.2	1,015.6	.0	58.4	−.6	78	6	66	41	3	50	33	200	46	69	.03	−.7	.02	2	7.3	w.	26	w.	9	10	11	9	5.2	.0	.0	0
PANAMA CANAL																																		
Balboa Heights	118	6	92	-----	[3]1,015.5	.0	83.5	+.1	95	21	92	73	1	75	20	0	72	[3]77	1.84	−1.0	1.09	6	5.4	n.	25	n.	10	2	25	3	5.4	.0	.0	8
Cristobal	27	47	97	-----	[3]1,009.8	.0	81.1	+.3	95	29	90	68	1	72	27	0	72	[3]76	1.05	−2.1	.42	9	6.9	n.	22	n.	19	5	14	11	6.0	.0	.0	8
ALASKA																																		
Anchorage [1]	132	6	44	1,011.2	1,016.3	-----	31.8	−3.6	52	20	42	−3	3	22	34	993	20	58	0.34	−0.1	.19	5	7.8	n.	43	n.	4	11	6	13	5.6	1.1	.0	0
Fairbanks [1]	455	5	63	1,002.4	1,020.0	-----	24.5	−4.9	51	17	36	−18	3	13	42	1,220	15	64	.00	−.2	.03	6	6.8	w.	30	w.	1	6	9	15	6.3	1.7	.0	0
Juneau [1]	80	6	32	1,013.5	1,016.6	-----	37.0	-----	55	24	43	13	7	31	27	840	28	72	2.82	-----	.81	16	7.8	se.	35	se.	13	1	4	25	8.4	5.9	.0	0
Nome	22	25	56	1,022.4	1,023.0	-----	18.8	−.9	40	17	27	−18	2	10	31	1,386	16	82	1.11	+.4	.74	9	7.2	e.	27	e.	6	11	6	13	5.7	11.5	23.4	0
Barrow	25	5	27	-----	1,022.0	-----	4.0	+4.2	32	22	12	−19	1	−4	32	1,830	4	98	.09	−.0	.04	4	11.3	se.	41	sw.	23	2	3	25	8.3	1.7	15.0	0
Bethel	28	5	31	1,020.3	1,021.7	-----	23.8	−3.6	43	22	32	−16	1	16	32	1,234	20	82	.13	−.4	.08	4	11.7	----	----	----	----	9	8	13	5.7	1.1	T	0
Gambell	32	5	32	1,021.7	1,022.7	-----	20.8	-----	36	25	29	−7	3	13	19	1,326	21	94	.31	-----	----	12	13.0	ne.	48	se.	6	6	7	17	7.0	8.1	11.5	0
Ketchikan	75	69	90	1,015.9	1,016.6	-----	41.3	−1.3	55	24	47	28	7	36	20	708	34	78	9.31	−1.7	1.56	23	6.8	se.	24	e.	3	2	4	24	8.2	T	.0	0
Kotzebue	20	5	31	1,022.4	1,023.0	-----	14.2	+.2	42	23	24	−23	2	5	32	1,526	12	88	.17	−.1	----	7	12.2	se.	39	se.	7	6	12	12	6.4	1.6	13.1	0
McGrath	341	5	31	1,007.5	1,020.7	-----	22.2	-----	50	17	35	−28	2	10	46	1,285	16	71	.34	−.1	.29	4	----	n.	----	----	----	13	5	12	5.0	6.3	7.4	0
Northway	1,718	5	32	954.3	1,019.3	-----	20.5	-----	47	17	34	−27	6	7	47	1,333	13	68	.78	-----	.49	5	6.3	nw.	30	-----	1	9	4	17	6.3	5.0	14.4	0
Summit	2,407	5	30	929.2	1,019.0	-----	19.0	-----	47	23	30	−16	3	8	32	1,378	14	74	.31	-----	.13	5	----	----	----	----	----	8	12	10	6.1	4.0	26.7	0

[1] Data are airport records.
[2] Barometric data (adjusted to old city elevation) and hygrometric data from airport; otherwise city office records.
[3] Observations taken bihourly.
[4] Pressure (adjusted to old city elevation), temperature, and hygrometric data from airport; otherwise city office records.
[5] Temperature and precipitation from city records, other data from airport.

NOTE.—Except as indicated by notes [1], [2], [4], and [5] data in table are city office records.

SEVERE LOCAL STORMS, APRIL 1945

[Compiled by Mary O. Souder]

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Louisiana, entire state	April 1	Entire day		4	$265,000	Wind and tornadoes	High winds entire State. Tornadoes in Caney, Campbell, Leesville, and many communities. High tides in many coastal areas resulted from strong, southerly winds for hours.
Mississippi	1	do		2		Wind	Strong winds over most of State, most severe in coastal areas where considerable damage to boats, wharves, and other property occurred because of high tides. Some salt water damage to gardens and truck.
Mobile, Ala	1				75,000	Tornado	Damage to equipment of Alabama Power Co. in this section $30,000. Damage to the Gulf Ship Building Co. and the Tennessee Coal & Iron R. R. Co., $10,000, with damage to equipment at the Alabama Ship Yard of over $1,000. In Mississippi Sound between 25 and 30 barges were driven ashore. Most of them were refloated practically undamaged, the loss between $25,000 and $30,000.
Vernon, Crawford, and Portage Counties, Wis.	3–4	Night			10,000	Glaze	Overhead wires and trees coated with ice particularly in Vernon and and Crawford Counties, where many utility lines were down and fruit and other trees damaged. Scattered damage occurred northeast to Portage County.
Milwaukee, Wis	4	8 a. m.–3 p. m.			7,800	Gales	Maximum wind velocity of 56 miles per hour recorded at 11:28 a. m. 100 good sized trees and many smaller ones blown down; electric wires and poles down; other property damaged.
Murraysville, vicinity of, to Tunnelton, Pa.	4		33–500		3,000	Thunderstorm	Major damage at Loyalhanna Dam. Damage along the 16-mile path mostly to trees.
Milwaukee and Racine, Wis., vicinities of.	11				4,000	Wind	Extreme wind velocity at Airport Station, 52 miles per hour from the west at 3:57 p. m. No material loss in Milwaukee, but dozens of small spotted fish were found scattered over the Tripoli Country Club golf course on the north side. They had apparently been blown out of a pond several hundred yards distant. 22 miles south of Racine wind lifted a cabin plane 50 feet in the air and dropped it upside down, wrecking it. The plane had been lashed to stakes and a truck.
Oklahoma, Arkansas and Missouri.	12	p. m		119	2,650,000	do	The storm originated in Oklahoma, swept across northwestern Arkansas and on into the Missouri Ozarks. The following is an estimated amount of damage and number of fatalities by States. Oklahoma: 84 deaths; 493 injuries; 500 homes demolished and over $2,650,000 damage. Missouri: 10 deaths and considerable damage. Arkansas: 25 deaths and severe damage, details not available. In Missouri the damage occurred in the southwestern portion of the State. In Arkansas the tornado entered the State about 6 p. m., and progressed northeastward through Sebastian, Crawford, Washington, and Madison Counties, and also hit Paris, Clarkesville, and Harrison.
Quinton, Okla	13	8:45 p. m	880	0	3,100	Tornado	Property damaged; path 2 miles long.
Farris, Okla	13	9:30 p. m	440	0	11,000	do	Occurred in farming community; 10 persons injured: 2 homes destroyed and 6 other buildings damaged; path 3 miles long.
Ardmore, Okla., vicinity of	14	5:30 p. m	100	1	15,000	do	1 person injured; 3 homes demolished.
Okemah, Okla	15	6:35 p. m	33	0	10,000	do	10 persons injured; path 8 miles long.
South Dakota, eastern section of State.	15–16					Rain, heavy snow, and high wind.	Rain on 15th turned to snow on the 16th with high, gusty wind and near freezing temperatures; snapped power and communication lines and made highway travel treacherous; some schools closed.
Vigo and Park Counties, Ind.	16	11 a. m	[1] 5		4,000	Wind	Property damaged.
Mishawaka, Ind	16	1 p. m	167		15,000	do	2 persons injured; property damaged.
Whitley County, Ind	16	2:30 p. m	100		20,500	do	Property damaged, $20,000; crop loss, $500.
Fort Wayne, Ind	16				3,000	do	Roofs and wires damaged.
Rome, Ga., vicinity of	16				15,000	Hail and wind	Property damaged, $10,000; crop loss, $5,000.
Troup and Baldwin Counties, Ga., and vicinities.	16				80,000	do	Crop loss from hail, $30,000; from wind, $50,000.
Mecklenburg County, N. C.	17	11 a. m., E. S. T.	100	0	75,000	Tornado	The storm struck about 8 miles southeast of Charlotte and extended along the Amity Road for about 2 miles, crossing Monroe Road in a northeasterly direction at the Oakhurst community and the Albemarle Road near Robinson Church vicinity. There were long skip distances over the 10-mile path where damage did not occur or was very slight, uprooting an occasional tree. A church at Oakhurst was leveled, 5 frame houses damaged, and 2 small buildings disappeared; 5 garages were destroyed while the houses nearby were undamaged. Some loss to telephone and power lines; and trees uprooted or broken off. Several persons slightly injured; 2 mules and a cow killed; crop loss slight; path 10 miles long.
Jasper, Fla., and vicinity	17	5:13 p. m			2,000	Hail	Considerable damage reported, with about $2,000 loss in tobacco.
Posey County, Ind	18	3 p. m			2,600	Wind	Buildings damaged.
De Land, Fla	18	8:30–9 p. m			12,500	Hail	Loss in crops.
Deep Creek, Fla	18	9 p. m., E. W. T.		0		Tornado and hail	Roofs of all houses on 1 farm blown off and chimneys blown down. Hail as large as guinea eggs caused much crop loss.
De Leon Springs, Fla	18					Hail and wind	Loss in crops; property damaged; livestock injured by falling trees.
Pensacola, Fla., and vicinity	23	12:30 a. m., E. W. T.	88	0	8,000	Tornado	6 houses destroyed and 10 others damaged; 8 persons injured, 5 seriously; path 362 yards long.
Madison, Fla., vicinity of	23				6,000	Hail	Loss in tobacco and corn; property damaged.
Daviess County, Ind	24	4 p. m			1,000	do	Property damage, $500; crop loss, $500.
Butler, Ga., vicinity of	24	10:15 p. m			25,000	Hail and wind	Property damaged.
Culloden, Ga	24	11 p. m	440		8,000	Wind	Property damaged; loss in crops.
Covington, Ga., and extreme eastern edge of Laurens County, Ga.	24		150	0	40,000	Tornado	Property damaged; several persons slightly injured and 100 made homeless; path 6 miles long.
Hogansville, Ga	24		[1] 2–3		10,000	Hail and wind	Loss in crops from hail, $5,000; property damage, $5,000.
Newman, Ga., and vicinities.	24				1,000	do	Crop loss from hail.
Scott, Ga	24			0		Tornado	Church blown from its foundation and heavily damaged; 2 brick stores unroofed and contents damaged; about 10 residences and number of other buildings badly damaged.
Cottonport, Godeau, Simmesport, and Baton Rouge, La., and vicinities, and southern edge of St. Helena Parish.	24–25	Late p. m.–early a. m.			25,000	Wind and hail	Scattered damage reported.

SEVERE LOCAL STORMS, APRIL 1945—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Experiment, Ga., and vicinity.	24–25	p. m.		7	150,000	Tornado	Property damaged; 18 persons injured.
Bibb County, Ga.	24–25				80,000	Tornadic wind and hail.	2 storms, first occurred at 11 p. m., Apr. 24, the other from 4 to 7 a. m., Apr. 25. Hail mostly light and spotted. Pine trees twisted off 10 feet above ground. Large trees, telephone and electric wires down and considerable damage to homes and buildings. Total property damage between $50,000 and $100,000; loss in peaches and other crops, $5,000.
Woodbury, Ga.	24–25				6,000	Hail and wind	2 storms, 1 at 10:30 p. m., Apr. 24, the other 1:30 a. m., Apr. 25. Loss in peach crop, $5,000; to other crops, $1,000.
Butler, Ga., vicinity of.	25	3:56 a. m.			25,000	do	Property damaged.
Fort Valley, Ga., vicinity of.	25	a. m.			10,000	do	Loss in crops mostly to peaches; grain and other crops blown over by heavy wind; moderate property damage.
Seymour, Tex.	27	11 p. m.	[1] 2		250,000	Hail	Much loss in wheat, oats and barley.
Baltimore, Md.	27	p. m.				Thundersquall	Storm lasted about 30 minutes. Roofs blown from 6 two-story row houses; other houses unroofed and some flooding reported; 1 person injured.
Bridgeport, Tex.	28	2 a. m.	[1] 4		3,000	Hail	Property damaged.
Do.	28	2–3 a. m.	[1] 7		5,400	Wind	Loss in livestock, $400; property damage, $5,000.
Fort Valley, Ga.	28	3 p. m.	200–400		30,000	do	Property damage, $25,000; loss in crops, $5,000.
Fernandine and Amelia Island, Fla.	28	7:15–7:25 p. m.			900	do	Damage to roofs and to small boats at docks.
Madison County, Fla.	29	12:30 p. m.			11,500	Hail	Loss in corn, cotton, and tobacco, $10,000; property damage, 1,500.

[1] Miles instead of yards.

SOLAR RADIATION AND SUNSPOT DATA FOR APRIL 1945

[Solar Radiation Investigations Section, I. F. Hand, in charge]

SOLAR RADIATION OBSERVATIONS

Explanations of the tables and references to descriptions of instruments, stations, and methods of observation, and to summaries of data, are given in the January 1944 REVIEW, page 43. A list of the pyrheliometric stations also is given on page 45 of the same REVIEW.

Morning fogs at Blue Hill resulted in lower values of total solar and sky radiation then received in the heart of Boston.

TABLE 1.—*Solar radiation intensities during April 1945*

[GRAM-CALORIES PER MINUTE PER SQUARE CENTIMETER OF NORMAL SURFACE]

MADISON, WIS.

Date	Sun's zenith distance: 7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p. m.
	75th mer. time	Air mass: A. M.				*1.0	P. M.				75th mer. time
	e.	5.0	4.0	3.0	2.0		2.0	3.0	4.0	5.0	e.
	mb.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mb.*
Apr. 5	3.5	0.71	0.83	0.96	1.22	1.50					3.7
Apr. 7	6.6	.53	.65	.77	.98	1.23					8.6
Apr. 9	10.5	.35	.47	.59	.86						13.7
Apr. 10	12.3	.43	.57	.71							14.8
Apr. 12	7.4	.75	.83	.96	1.15	1.40					8.5
Apr. 17	5.1										5.3
Apr. 18	4.2	.61	.84	.91							3.8
Apr. 20	7.2	.45	.59	.70							7.4
Apr. 27	4.6	.65	.77	.88	1.08	1.38					6.4
Means		.56	.69	.81	1.04	1.38					
Departures		−.15	−.17	−.20	−.14	−.04					

LINCOLN, NEBR.

Apr. 1	8.4					1.34					9.1
Apr. 4	4.4				1.11						4.0
Apr. 5	2.3		0.98	1.11	1.27	1.45					4.6
Apr. 6	6.6		.83	1.01	1.18	1.41					7.4
Apr. 11	8.1					1.44	1.25	1.09	0.96		6.1
Apr. 18	4.2			.79	1.09	1.35	1.09				6.4
Apr. 20	7.2				1.01	1.37					11.8
Apr. 21	6.9				1.09	1.25	1.07	.88	.71	0.60	7.2
Apr. 26	6.6					1.35	1.11				10.6
Apr. 30	7.8				1.07	1.32					7.4
Means			(.90)	.97	1.11	1.36	1.13	(.98)	(.84)	(.60)	
Departures			+.07	−.01	−.07	−.10	−.04	+.02	+.02	−.10	

ALBUQUERQUE, N. MEX.

Apr. 1	4.2		1.06	1.14	1.28	1.48		1.41	1.35	1.31	3.6
Apr. 4	1.8				1.36	1.55					0.0
Apr. 5	1.2			1.19	1.32	1.48					1.7
Apr. 6	1.1		1.10	1.19	1.31	1.48	1.43				1.4
Apr. 7	1.9			1.08	1.25	1.49	1.35	1.34	1.34	1.33	2.6
Apr. 9	1.9				1.37	1.51		1.07			1.9
Apr. 10	3.3			1.19	1.33						1.9
Apr. 11	2.9				1.29	1.52	1.41				2.5
Apr. 12	2.6			1.11	1.28			1.25	1.19	1.17	3.0

TABLE 1.—*Solar radiation intensities during April 1945*—Continued

ALBUQUERQUE, N. MEX.—Continued

Date	Sun's zenith distance: 7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p. m.
	75th mer. time	Air mass: A. M.				*1.0	P. M.				75th mer. time
	e.	5.0	4.0	3.0	2.0		2.0	3.0	4.0	5.0	e.
	mb.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mb.*
Apr. 13	3.6	0.96	1.03	1.08	1.26				1.18	1.14	3.8
Apr. 14	3.4		.90	.98	1.08						4.6
Apr. 16	3.3	.78	.85	1.04	1.24						4.6
Apr. 17	3.0	.86	.99	1.09	1.30	1.47	1.35				3.2
Apr. 18	3.4					1.48	1.27	1.04			3.4
Apr. 19	5.6	.82	.92	1.07	1.24		1.26	1.14	1.07	.99	6.0
Apr. 20	4.2	.94	1.02	1.13	1.28	1.44	1.29	1.20	1.15	1.08	6.0
Apr. 21	5.8			.63	1.00						6.3
Apr. 22	5.6					1.46					5.2
Apr. 24	5.6		.86								4.6
Apr. 25	4.2					1.49					2.6
Apr. 27	5.2		.89	1.02	1.18	1.43					4.6
Apr. 28	4.0	.90	.98	1.09	1.25	1.45	1.39	1.33	1.27	1.25	3.8
Apr. 29	3.3				1.03	1.49	1.41	1.35	1.34	1.35	3.6
Apr. 30	3.2	1.28	1.30	1.32	1.34	1.48	1.06				4.4
Means		.95	.99	1.08	1.25	1.48	1.32	1.25	1.24	1.20	
Departures		+.05	.00	−.02	−.02	−.01	+.03	+.10	+.17	+.21	

BLUE HILL, MASS.

Apr. 1	7.8	0.77	0.86	1.03	1.22	1.48	1.20	1.00			6.1
Apr. 5	15.2								0.90		6.9
Apr. 6	2.6	.90	1.01	1.14	1.33	1.53	1.29	1.11	.97	0.87	2.7
Apr. 7	4.6	.78	.88	1.04	1.20	1.43		.99	.84	.72	5.1
Apr. 8	8.1	.66	.80	.97	1.14	1.39	1.10	.92		.67	9.8
Apr. 9	10.6	.67	.79	.95	1.16		1.18	1.00	.85	.75	9.1
Apr. 10	9.8					1.45		1.03			11.8
Apr. 11	12.5					1.47	1.20	.96	.84	.74	9.4
Apr. 13	15.9				.94			.62	.44		11.8
Apr. 18	8.7						1.21	1.06	.92	.80	5.6
Apr. 19	4.8	.73	.84	.95			1.05	.85	.71	.60	4.4
Apr. 21	8.7	.56	.67	.82							4.6
Apr. 22	4.8				1.17			1.02	.90	.82	3.3
Apr. 23	2.4	.88	.99	1.11	1.27	1.46		1.05	.90	.82	2.5
Apr. 24	3.5	.78									4.0
Means		.75	.86	1.00	1.18	1.46	1.18	.97	.83	.75	
Departures		−.04	−.03	−.03	.00	+.07	+.05	+.02	+.01	+.07	

BOSTON, MASS.

Apr. 6	2.9			1.08	1.27	1.48					3.3
Apr. 7	4.6			.85	1.08						6.4
Apr. 9	10.2	0.39	0.64	.76	.99	1.46					12.7
Apr. 12	14.2				1.08	1.37					15.8
Apr. 13	15.8				.90						15.8
Apr. 19	6.1				1.16						5.3
Apr. 21	9.1				.94						8.7
Apr. 23	3.0	.85	.90	1.02	1.16	1.46					2.9
Means		(.62)	(.77)	.93	1.07	1.44					

RATIO BOSTON/BLUE HILL, ON COMPARABLE DATES

		(0.79)	(0.87)	0.88	0.92	0.98					

* Extrapolated.

TABLE 2.—*Daily totals and weekly means of solar radiation (direct+diffuse) received on a horizontal surface*

[Gram-calories per square centimeter]

Date	Washington, D.C.	Madison, Wis.	Lincoln, Nebr.	East Lansing, Mich.	New York, N.Y.	Fresno, Calif.	Fairbanks, Alaska	Columbia, Mo.	Boston, Mass.	Nashville, Tenn.	Twin Falls, Idaho	La Jolla, Calif.	Riverside, Calif.	Blue Hill, Mass.	Portland, Maine[1]	Ithaca, N.Y.	Newport, R.I.	State College, Pa.	Put-in-Bay, Ohio	East Wareham, Mass.	Davis, Calif.	Boulder, Colo.	Tooele, Utah
1945	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*
Apr. 2	109	425	73	59	167	624	.....	209	147	155	428	318	564	110	188	94	124	100	256	101	654	116	566
Apr. 3	558	98	92	91	520	599	.....	368	234	551	459	592	654	265	304	87	438	480	184	331	651	100	580
Apr. 4	332	179	616	155	106	604	.....	149	133	43	527	584	633	104	138	178	150	201	191	132	618	622	742
Apr. 5	462	643	605	335	304	534	.....	558	178	610	530	593	634	137	225	296	116	384	327	114	651	645	730
Apr. 6	563	482	560	472	590	518	.....	641	611	584	449	572	607	626	640	457	581	611	580	597	512	630	666
Apr. 7	598	568	374	483	508	491	.....	637	509	598	362	574	603	578	582	531	570	622	585	584	393	574	594
Apr. 8	579	552	519	491	454	116	.....	565	555	580	122	454	508	556	504	535	559	599	539	577	399	432	322
Means	457	421	406	298	378	498	389	433	347	446	411	527	601	339	369	311	362	428	380	348	554	446	600
Departures	+81	+46	+14	−37	+27	0	+54	+11	−28	+36	−24	+23	+140	−55	.....	+29	−53	+42	0	−59	+5	.....	.....
Apr. 9	572	508	480	470	548	592	.....	544	584	515	531	462	418	564	570	546	569	608	566	586	674	494	288
Apr. 10	583	533	126	478	531	606	.....	556	490	549	564	569	635	507	435	552	484	592	578	514	639	122	553
Apr. 11	303	298	513	419	232	632	.....	216	534	550	234	565	637	539	539	581	466	612	533	513	502	545	433
Apr. 12	297	639	372	284	274	677	.....	449	526	563	265	541	566	524	564	486	483	576	233	541	679	419	586
Apr. 13	525	211	109	274	458	649	.....	477	465	390	252	598	612	515	522	418	527	509	332	506	698	170	450
Apr. 14	365	619	148	388	321	633	.....	59	500	403	611	607	653	500	507	168	439	178	196	530	693	62	785
Apr. 15	71	145	44	324	548	636	.....	58	603	392	611	609	650	502	647	590	584	560	344	629	657	40	267
Means	388	422	256	376	416	629	381	337	529	480	438	564	596	534	541	477	508	519	398	545	662	265	480
Departures	−9	+20	−162	+15	+61	+83	+14	−41	+142	+69	−11	+41	+148	+160	.....	+175	+87	+126	+1	+130	+90	.....	.....
Apr. 16	61	293	207	216	104	621	.....	225	321	150	601	596	644	248	.....	187	194	76	315	262	681	238	756
Apr. 17	80	604	548	382	201	620	.....	610	358	612	604	372	617	228	.....	224	167	294	604	276	661	652	781
Apr. 18	635	526	644	331	607	604	.....	657	593	606	508	218	580	593	.....	374	575	513	474	568	662	630	706
Apr. 19	646	373	568	489	569	603	.....	201	605	625	591	162	574	513	.....	437	540	598	626	622	666	554	739
Apr. 20	266	353	557	328	193	586	.....	614	474	386	431	146	545	275	.....	75	413	210	412	500	633	662	673
Apr. 21	282	527	602	203	192	615	.....	649	413	525	477	162	476	453	.....	112	439	252	301	508	596	618	504
Apr. 22	664	334	497	565	666	623	.....	517	593	211	626	318	186	490	.....	.....	535	713	694	656	715	253	782
Means	376	430	518	359	362	610	428	496	480	445	548	282	518	400	.....	235	409	380	489	485	659	515	706
Departures	−34	+27	+79	+3	−21	+30	+51	+109	+109	+37	+70	−243	+13	+22	.....	−55	+7	−22	+93	+76	+81	.....	.....
Apr. 23	434	297	165	450	540	597	.....	281	654	197	233	583	618	659	.....	557	655	563	388	675	593	531	633
Apr. 24	116	140	573	38	361	601	.....	72	409	387	361	284	223	377	.....	77	469	84	105	506	585	279	145
Apr. 25	118	303	108	94	40	659	.....	48	128	508	456	183	193	118	.....	107	166	151	149	250	647	492	689
Apr. 26	492	279	637	106	513	669	.....	641	163	171	632	544	315	125	.....	270	367	346	57	219	718	492	603
Apr. 27	612	709	250	337	328	658	.....	475	99	507	571	624	667	91	.....	80	153	186	275	116	690	545	751
Apr. 28	529	534	348	592	654	648	.....	109	331	99	641	507	652	311	.....	133	521	682	643	376	701	536	700
Apr. 29	481	595	148	573	438	649	.....	609	334	262	632	356	648	300	.....	265	532	313	585	454	722	572	781
Means	398	408	318	313	410	640	295	319	303	304	504	440	474	283	.....	213	409	332	315	371	665	492	615
Departures	−49	−26	−103	−25	−42	+76	−67	−23	−75	−120	+3	−88	+7	−157	.....	−181	−56	−108	−72	−66	+76	.....	.....
ACCUMULATED DEPARTURES ON APRIL 29, 1945																							
	+175	+3,129	−2,793	−1,274	0	+1,337	−511	+854	+2,163	−2,149	−2,275	−4,053	+4,200	−1,232	.....	+287	−1,470	+3,305	+1,148	+546	+1,176	.....	.....

[1] NOTE.—Data for Portland, Maine, discontinued Apr. 15, 1945.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR APRIL 1945

By LUCY T. DAY

[Equatorial Division, U. S. Naval Observatory]

[Communicated by Commodore J. F. Hellweg, U. S. N. (Ret.) Superintendent, U. S. Naval Observatory.] All measurements and spot counts were made at the Naval Observatory from plates taken at the observatories indicated. Difference in longitude is measured from the central meridian, positive toward the west. Latitude is positive toward the north. Areas are corrected for foreshortening and expressed in millionths of Sun's hemisphere. For each day, under longitude, latitude, areas of spot or group, and spot count are included assumed longitude of center of the disk, assumed latitude of center of the disk, total area of spots and groups and total spot count.

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1945	h m		°	°	°	°				
April 1	10 39	7735	−85	346	−28	85	48	1	P	U. S. Naval.
		7734	−12	59	+32	40	48	1		
		7733	+1	72	−21	16	436	6		
		7733	+8	79	−22	17	485	11		
		7732	+51	122	−33	55	48	3		
		7732	+56	127	−31	60	339	1		
				(71)	(−7)		1,404	23		

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR APRIL 1945—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1945	h m		°	°	°	°				
2	11 16	7735	−72	346	−27	72	48	1	F	Mt. Wilson.
		7734	+2	60	+33	40	73	1		
		7733	+15	73	−22	22	388	5		
		7733	+21	79	−22	28	533	6		
		7732	+70	128	−31	70	145	1		
				(58)	(−6)		1,187	14		
3	10 26	7735	−60	345	−28	62	97	1	G	U. S. Naval.
		7734	+13	58	+34	42	48	2		
		7733	+26	71	−21	29	291	5		
		7733	+31	76	−21	33	242	10		
		7733	+35	80	−22	37	339	1		
		7732	+80	125	−31	80	291	1		
				(45)	(−6)		1,308	20		
4	11 16	7735	−48	343	−28	52	97	2	P	Do.
		7734	+27	58	+34	50	48	1		
		7733	+40	71	−21	42	291	4		
		7733	+44	75	−21	47	194	12		
		7733	+48	79	−22	49	242	1		
				(31)	(−6)		872	20		

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR APRIL 1945—Continued

Date	Eastern standard time	Mount Wilson group no.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1945	h m		°	°	°	°				
5	10 48	7735	−35	343	−28	40	73	1	P	U. S. Naval.
		7734	+40	58	+33	56	36	1		
		7733	+52	70	−21	53	242	2		
		7733	+57	75	−21	58	97	6		
		7733	+60	78	−22	61	194	1		
				(18)	(−6)		642	11		
6	10 27	7735	−22	343	−29	32	61	1	F	Do.
		7734	+52	57	+33	65	36	1		
		7733	+65	70	−21	66	242	1		
		7733	+73	78	−22	73	291	6		
				(5)	(−6)		630	9		
7	10 56	7735	−9	343	−29	25	61	1	F	Do.
		7736	+34	26	−20	36	12	2		
		7734	+63	55	+32	74	24	1		
		7733	+79	71	−21	79	242	1		
		7733	+85	77	−23	85	194	1		
				(352)	(−6)		533	6		
8	11 16	7735	+4	342	−28	23	36	1	F	Do.
		7734	+78	56	+32	78	6	1		
				(338)	(−6)		42	2		
9	10 31	7735	+14	340	−31	29	6	1	G	Do.
		7735	+17	343	−29	27	16	3		
				(326)	(−6)		22	4		
10	9 18	-------	------	None	None	------	------	------	†	Mt. Wilson.
11	9 12	-------	------	None	None	------	------	------	†	Do.
12	12 31	7737	−52	233	−7	52	6	1	F	U. S. Naval.
				(285)	(−6)		6	1		
13	10 31	7737	−38	235	−7	38	12	4	F	Do.
		7737	−35	238	−8	35	6	1		
				(273)	(−6)		18	5		
14	10 8	7737	−28	232	−8	28	6	1	G	Do.
		7737	−24	236	−7	24	16	3		
		(*)	−24	236	+5	28	6	2		
				(260)	(−6)		28	6		
15	10 27	7737	−15	231	−8	15	6	2	G	Mt. Wilson.
		7737	−10	236	−7	10	16	4		
				(246)	(−6)		22	6		
16	9 24	7737	−2	232	−7	2	12	2	G	Do.
		7737	+3	237	−6	3	36	5		
				(234)	(−6)		48	7		
17	8 54	7738	−75	146	−23	76	12	2	G	Do.
		7737	+11	232	−7	11	61	6		
		7737	+15	236	−7	15	36	4		
				(221)	(−5)		109	12		
18	10 36	7738	−67	140	−23	68	61	6	G	U. S. Naval.
		7738	−61	146	−21	62	6	1		
		7738	−61	146	−23	62	73	4		
		7738	−57	150	−22	58	48	3		
		7737	+27	234	−7	27	24	8		
		7737	+29	236	−6	29	12	4		
				(207)	(−5)		224	26		
19	10 45	7739	−80	114	−31	80	242	1	F	Do.
		7738	−53	141	−23	55	121	5		
		7738	−50	144	−23	52	48	2		
		7738	−54	150	−22	45	145	4		
		7737	+39	233	−7	39	12	2		
				(194)	(−5)		568	14		
20	10 57	7739	−68	112	−31	69	194	1	F	Do.
		7738	−39	141	−23	41	145	6		
		7738	−34	146	−22	37	97	10		
		7738	−29	151	−22	32	194	1		
		7737	+52	232	−7	52	6	1		
				(180)	(−5)		636	19		
21	12 29	7739	−54	112	−31	57	145	1	F	Do.
		7738	−26	140	−22	30	97	5		
		7738	−23	143	−22	28	61	11		
		7738	−16	150	−23	24	48	6		
		7738	−14	152	−22	21	145	1		
				(166)	(−5)		496	24		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR APRIL 1945—Continued

Date	Eastern standard time	Mount Wilson group no.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1945	h m		°	°	°	°				
22	10 46	7739	−42	112	−31	48	121	1	F	U. S. Naval.
		7738	−12	142	−24	23	121	6		
		7738	−5	149	−24	20	48	3		
		7738	−2	152	−23	18	194	2		
				(154)	(−5)		484	12		
23	9 41	7740	−65	76	−20	65	6	1	G	Mt. Wilson.
		7739	−31	110	−31	39	121	1		
		7738	−1	140	−24	20	121	4		
		7738	+4	145	−21	17	12	1		
		7738	+9	150	−22	19	121	2		
				(141)	(−5)		381	9		
24	12 31	7740	−55	71	−25	56	6	1	G	Do.
		7739	−17	109	−32	31	97	1		
		7738	+17	143	−24	34	145	9		
		7738	+22	148	−23	38	24	1		
		7738	+27	153	−22	32	121	4		
				(126)	(−5)		393	16		
25	15 54	7741	−78	33	−18	78	533	7	P	U. S. Naval.
		7739	−9	102	−32	28	6	1		
		7739	−6	105	−34	30	6	1		
		7739	−4	107	−32	28	97	1		
		7742	−1	110	−33	28	12	2		
		7738	+31	142	−24	35	97	7		
		7738	+40	151	−23	43	97	3		
				(111)	(−5)		848	22		
26	10 40	7741	−72	29	−21	72	48	7	VG	Do.
		7741	−70	31	−19	70	388	7		
		7741	−68	33	−17	68	485	9		
		7741	−63	38	−18	63	436	1		
		7740	−23	78	−21	27	12	5		
		7739	+7	108	−32	28	97	1		
		7742	+10	111	−32	28	73	8		
		7738	+43	144	−24	45	36	3		
		7738	+9	150	−23	51	73	3		
				(101)	(−5)		1,648	44		
27	10 34	7741	−60	28	−20	60	61	6	G	Do.
		7741	−58	30	−18	59	339	13		
		7741	−55	33	−17	57	388	2		
		7741	−51	37	−17	53	218	3		
		7741	−49	39	−18	50	267	1		
		7740	−12	76	−20	18	6	2		
		7739	+19	107	−31	32	73	1		
		7742	+22	110	−30	33	48	6		
		7738	+59	147	−24	60	48	8		
		7738	+65	153	−23	66	61	1		
				(88)	(−5)		1,509	43		
28	10 39	7741	−46	29	−20	47	121	7	F	Do.
		7741	−46	29	−18	48	61	1		
		7741	−42	33	−18	43	436	8		
		7741	−39	36	−17	40	291	2		
		7741	−36	39	−18	38	194	1		
		7740	−1	74	−25	21	6	1		
		7739	+31	106	−32	40	73	1		
		7742	+37	112	−31	45	36	3		
		7738	+78	153	−24	78	48	1		
				(75)	(−5)		1,266	25		
29	12 18	7743	−75	346	−18	75	12	1	F	Do.
		7741	−30	31	−20	33	109	6		
		7741	−27	34	−18	31	436	9		
		7741	−24	37	−17	27	194	1		
		7741	−22	39	−18	25	121	1		
		7739	+45	106	−32	51	73	1		
				(61)	(−4)		945	19		
30	10 42	7744	−75	333	−25	75	145	1	VG	Do.
		7743	−61	347	−19	61	12	2		
		7741	−17	31	−20	23	121	16		
		7741	−14	34	−19	21	315	18		
		7741	−11	37	−18	19	242	1		
		7741	−9	39	−19	18	97	2		
		7740	+23	71	−17	27	12	5		
		7740	+29	77	−19	32	12	3		
		7739	+60	108	−32	62	73	1		
				(48)	(−4)		1,029	49		

Mean daily area for 30 days=577

*Not numbered.
†Date from Mount Wilson charts.
VG=very good; G=good; F=fair; P=poor.

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR MARCH 1945

[Based on observations at Zurich except as indicated by an asterisk. Data furnished through the courtesy of Prof. W. Brunner, Swiss Federal Observatory, Zurich, Switzerland]

Date	Relative numbers	Date	Relative numbers	Date	Relative numbers
1	*13	12	19	23	14
2	*d*23	13	20	24	14
3	18	14	11	25	18
4	22	15	10		
5	26			26	22
		16	0	27	*Ec*
6	*14	17	*8	28	**a*35
7	*14	18	8	29	60
8	**a*15	19	15	30	64
9	22	20	15		
10	21	21	*d*61	31	63
11	22	22	13		

Mean, 30 days=21.2

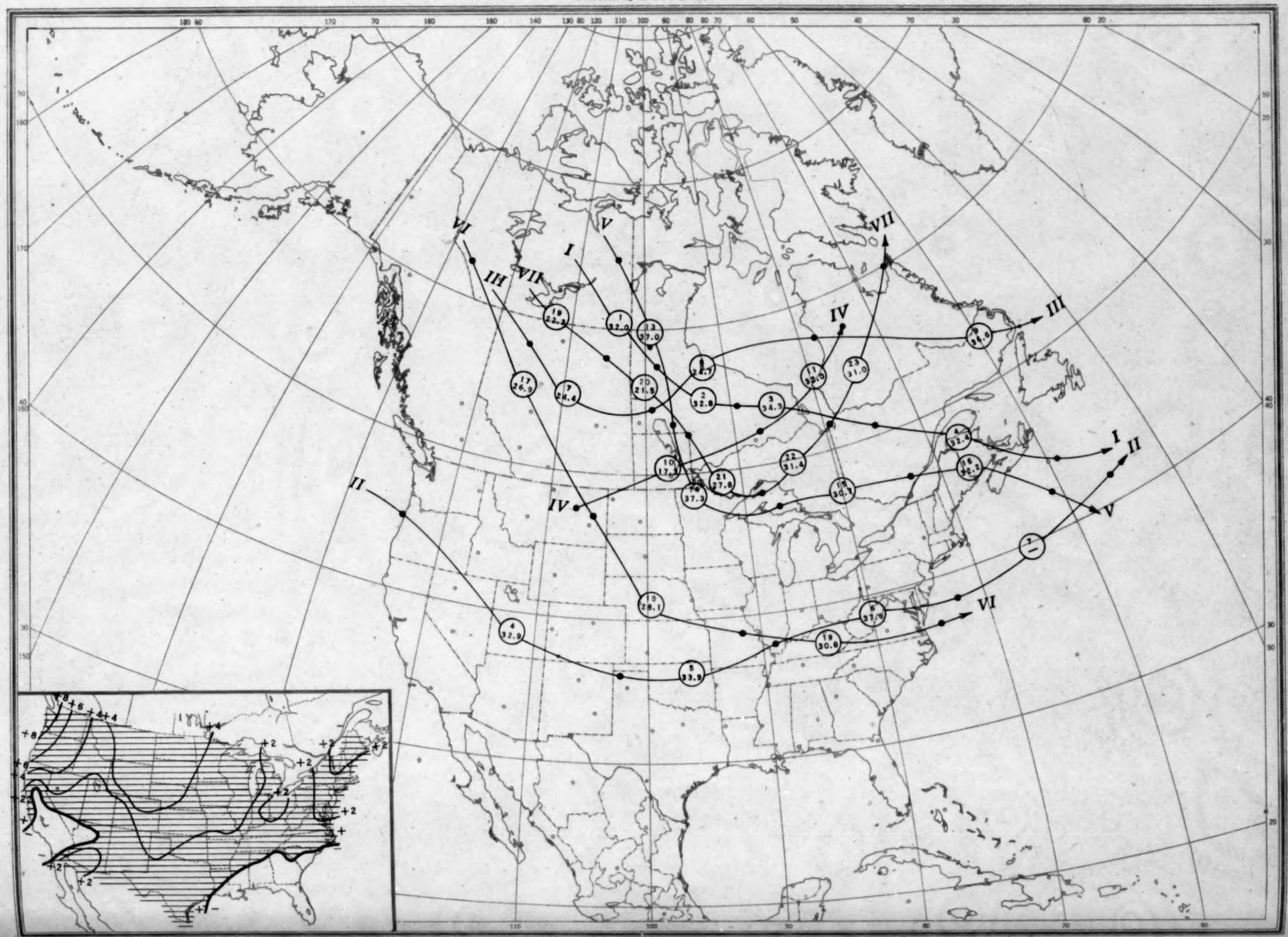
* Observed at Arosa or Locarno.
a Passage of an average sized group through the central meridian.
b Passage of a large group through the central meridian.
c New formation of a group developing into a middle sized or large center of activity; E, on the eastern part of the Sun's disc; W, on the western part; M, in the central circle zone
d Entrance of a large or average sized center of activity on the east limb.

Chart I. Departure (°F.) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, April 1945

Chart I. Departure (°F.) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, April 1945

Chart II. Tracks of Centers of Anticyclones, April 1945. (Inset) Departure of Monthly Mean Pressure from Normal

(Plotted by D. R. Harris)



Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

Chart III. Tracks of Centers of Cyclones, April 1945. (Inset) Change in Mean Pressure from Preceding Month

(Plotted by D. R. Harris)

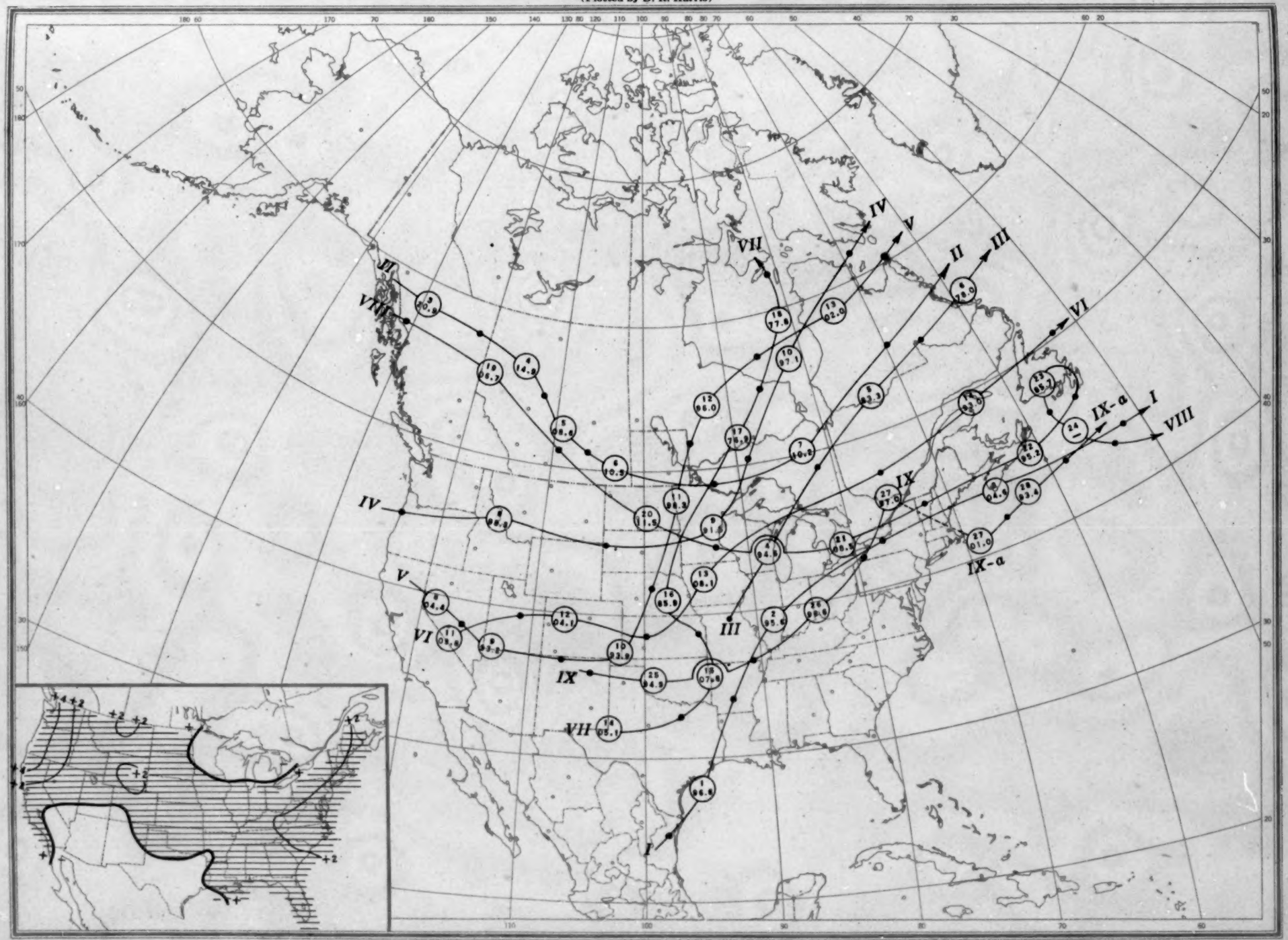

I
II
III
IV
V
VI
VII
VIII
IX
IX-a
+4 +2
+2 +2
+2
+2
+

Chart IV. Percentage of Clear Sky Between Sunrise and Sunset, April 1945

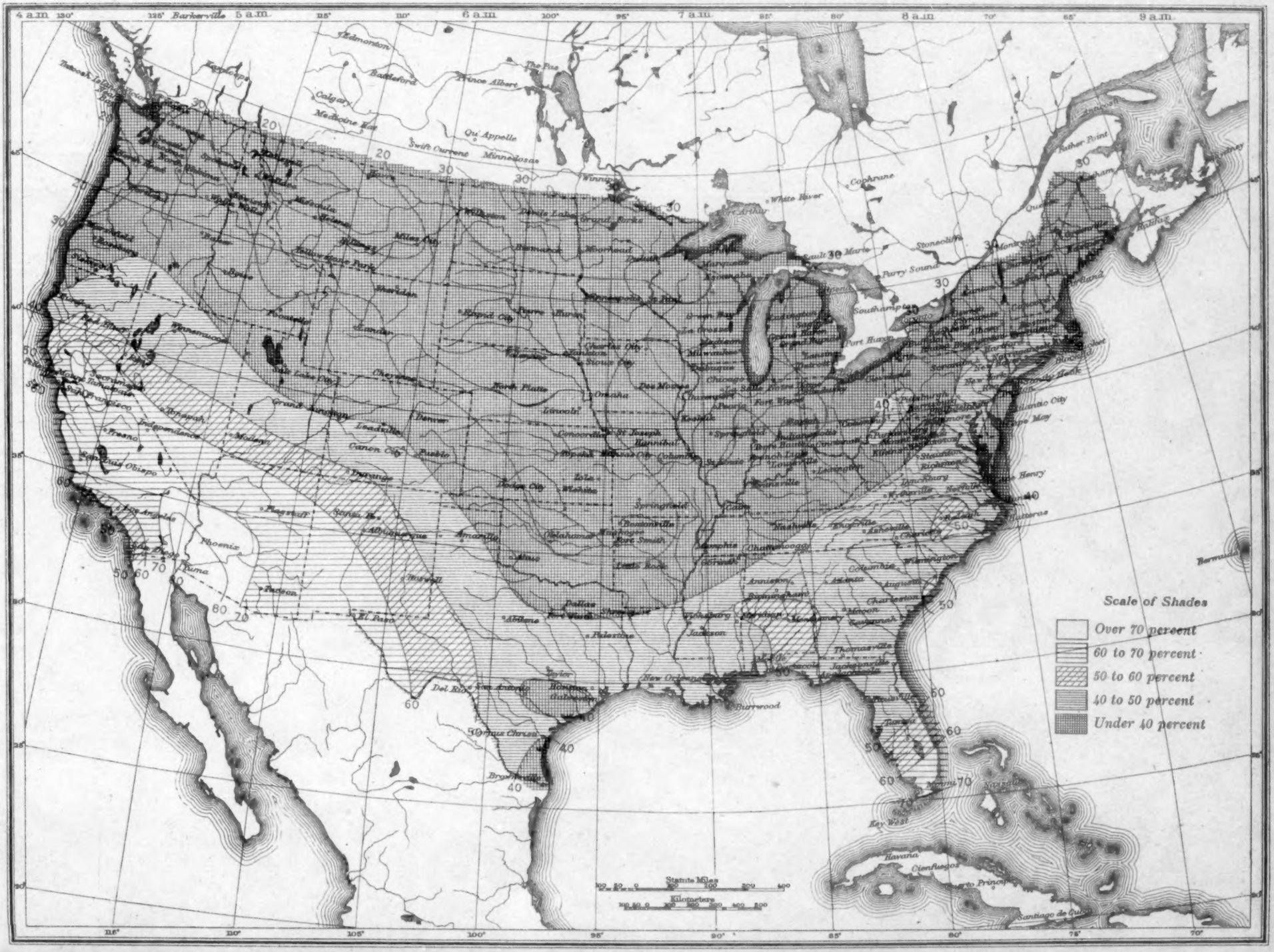


Chart V. Total Precipitation, Inches, April 1945. (Inset) Departure of Precipitation from Normal

Chart V. Total Precipitation, Inches, April 1945. (Inset) Departure of Precipitation from Normal

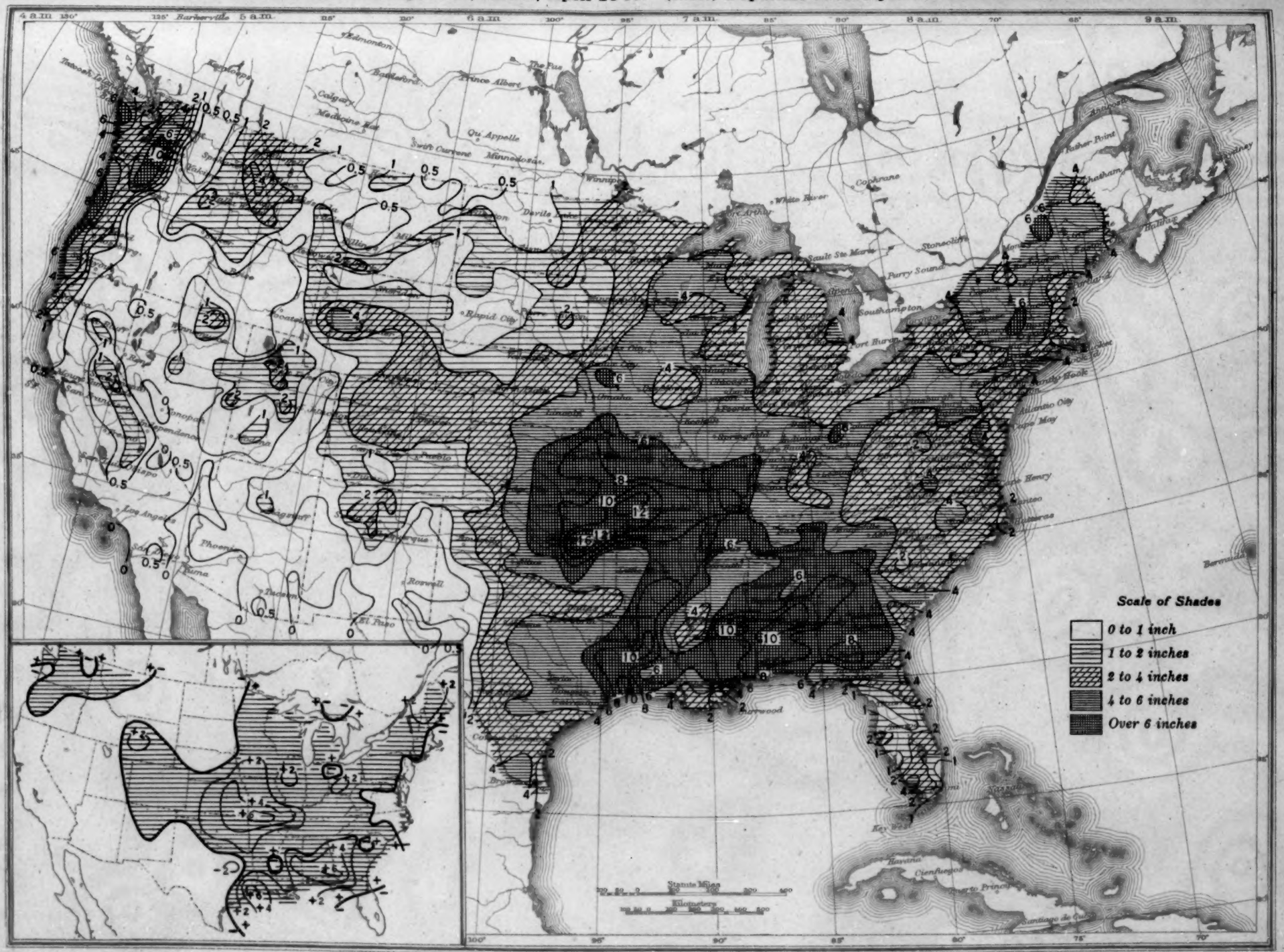


Chart VI. Isobars (mb), at Sea Level and Isotherms (°F.) at Surface; Prevailing Winds, April 1945

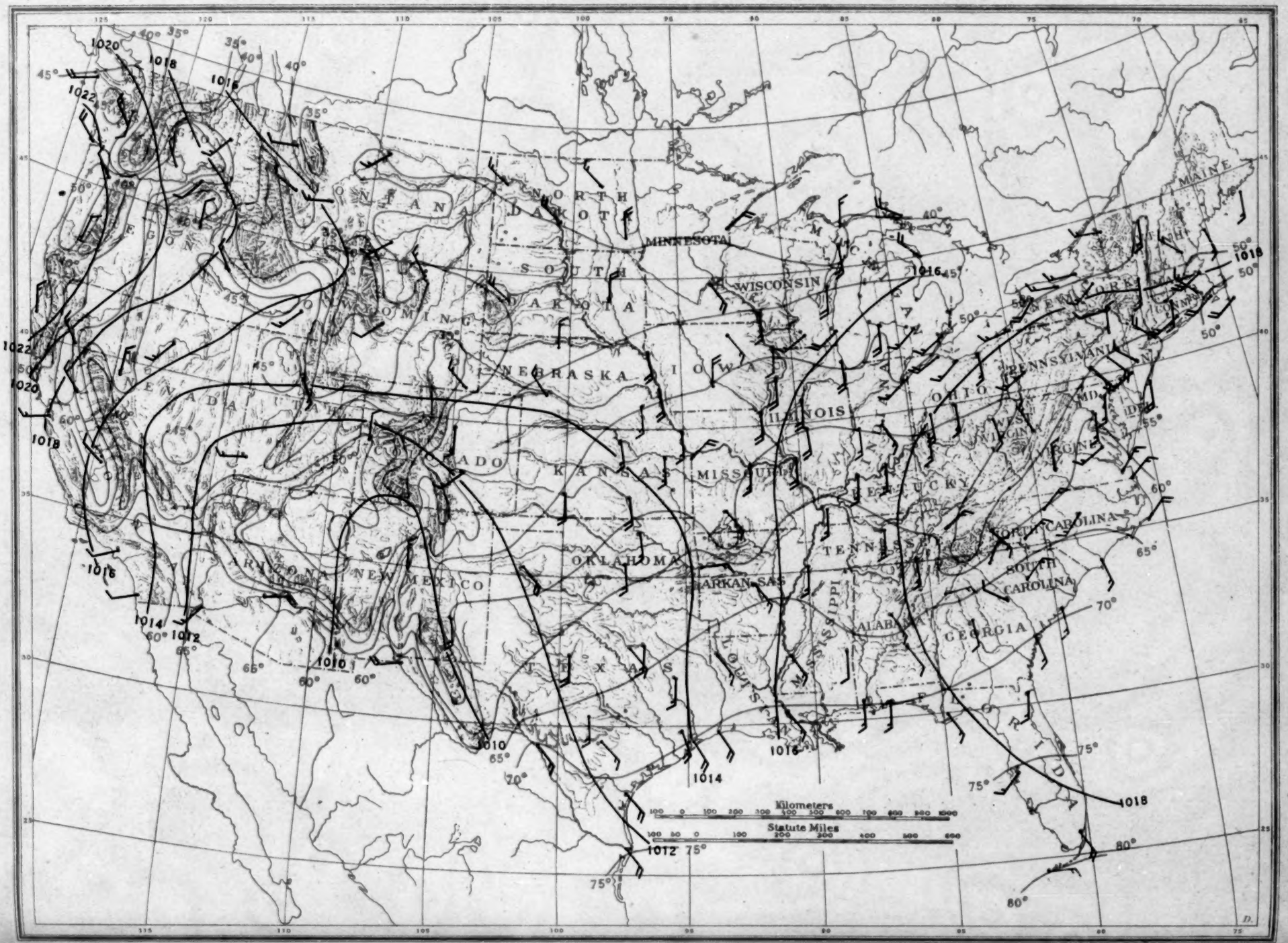


Chart VIII. Isobars (mb) for 1,524 Meters (5,000 ft.), and Isotherms (°C.), and Resultant Winds for 1,500 Meters (m. s. l.) April 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 a. m. (E. S. T.).

4 a.m.
5 a.m.
6 a.m.
7 a.m.
8 a.m.
9 a.m.
Barkerville
Edmonton
Prince Albert
The Pas
Qu'Appelle
Medicine Hat
Moosejaw
Winnipeg
Devils Lake
Grand Forks
Bismarck
Williston
Miles City
Sheridan
Rapid City
Huron
Aberdeen
Pierre
Sioux City
Yankton
Valentine
North Platte
Omaha
Lincoln
Grand Junction
Denver
Leadville
Pueblo
Dodge City
Wichita
Springfield
Bentonville
Fort Smith
Oklahoma
Amarillo
Santa Fe
Albuquerque
Roswell
El Paso
Tucson
Phoenix
Yuma
Fresno
Independence
Tonopah
Reno
Winnemucca
Salt Lake City
Modena
Las Vegas
Los Angeles
Point Conception
San Diego
Abilene
Fort Worth
Waco
Palestine
Del Rio
San Antonio
Houston
Galveston
Corpus Christi
Brownsville
Jackson
New Orleans
Shreveport
Memphis
Nashville
Chattanooga
Atlanta
Birmingham
Montgomery
Columbus
Jacksonville
Tallahassee
Tampa
Miami
Key West
Havana
Cienfuegos
Santiago de Cuba
Bermuda
Thomasville
Tifton
Waycross
Savannah
Charleston
Wilmington
Charlotte
Asheville
Knoxville
Lexington
Louisville
Evansville
Indianapolis
Terre Haute
Cincinnati
Columbus
Zanesville
Parkersburg
Mount Weather
Harrisonburg
Staunton
Lynchburg
Roanoke
Bluefield
Pittsburgh
Harrisburg
Altoona
Williamsport
Erie
Scranton
Cleveland
Akron
Toledo
Fort Wayne
Chicago
Milwaukee
Davenport
Peoria
Rockford
Green Bay
Fond du Lac
Marquette
Escanaba
Sault Ste. Marie
Houghton
Duluth
Minneapolis
Eau Claire
La Crosse
Madison
Dubuque
Rochester
Mason City
Fort Dodge
Sioux Falls
Huron
Watertown
Aberdeen
Bismarck
Minot
Williston
Glasgow
Havre
Great Falls
Helena
Butte
Missoula
Kalispell
Spokane
Walla Walla
Yakima
Seattle
Quillayute
Tatoosh
Astoria
Portland
Medford
Redding
Eureka
Sacramento
San Francisco
Point Reyes
Santa Maria
Bakersfield
Needles
Flagstaff
Winslow
Gallup
Tucumcari
Clayton
Dalhart
Childress
Vernon
Wichita Falls
Lufkin
Beaumont
Port Arthur
Lake Charles
Alexandria
Shreveport
Monroe
Vicksburg
Meridian
Jackson
Greenville
Hattiesburg
Mobile
Pensacola
Apalachicola
Cape Henry
Norfolk
Richmond
Lynchburg
Roanoke
Bluefield
Elkins
Morgantown
Clarksburg
Parkersburg
Zanesville
Columbus
Akron
Youngstown
Erie
Buffalo
Rochester
Syracuse
Albany
Binghamton
Utica
Watertown
Oswego
Massena
Ogdensburg
Plattsburg
Burlington
Montpelier
Concord
Edison
Boston
Nantucket
Provincetown
Portland
Eastport
Caribou
Grand Falls
Fredericton
Moncton
Saint John
Yarmouth
Sydney
Charlottetown
Father Point
Chatham
Quebec
Ottawa
Timmins
Sault Ste. Marie
Port Arthur
Fort William
Kenora
Winnipeg
Brandon
Regina
Moosejaw
Swift Current
Medicine Hat
Calgary
Edmonton
Prince Albert
The Pas
Churchill
Fort Smith
Yellowknife
Whitehorse
Dawson
Fairbanks
Nome
Kotzebue
Barrow
Point Hope
Kodiak
Juneau
Ketchikan
Sitka
Prince Rupert
Vancouver
Victoria
Port Hardy
Kamloops
Prince George
Fort Nelson
Fort Simpson
Norman Wells
Aklavik
Inuvik
Coppermine
Cambridge Bay
Resolute
Eureka
Alert
Baffin Island
Frobisher Bay
Cape Dyer
Hopedale
Nain
Goose Bay
Labrador City
Wabush
Schefferville
Knob Lake
Great Whale River
Fort George
Fort Chimo
Port Harrison
Povungnituk
Cape Hopes Advance
Lake Harbour
Pangnirtung
Clyde
Broughton Island
Cape Dorset
Coral Harbour
Southampton Island
Baker Lake
Rankin Inlet
Chesterfield Inlet
Eskimo Point
Arviat
Whale Cove
Repulse Bay
Pelly Bay
Gjoa Haven
Spence Bay
Cambridge Bay
Victoria Island
Banks Island
Sachs Harbour
Holman Island
Tuktoyaktuk
Aklavik
Inuvik
Fort McPherson
Dawson
Whitehorse
Watson Lake
Fort Nelson
Fort St. John
Dawson Creek
Grande Prairie
Peace River
Fort Vermilion
High Level
Fort Chipewyan
Lac La Biche
Edmonton
Calgary
Lethbridge
Medicine Hat
Swift Current
Moosejaw
Regina
Yorkton
Prince Albert
The Pas
Flin Flon
Churchill
Thompson
Norway House
Berens River
Sioux Lookout
Red Lake
Kenora
Fort Frances
Port Arthur
Fort William
Sault Ste. Marie
Timmins
Ottawa
Quebec
Father Point
Chatham
Fredericton
Saint John
Yarmouth
Sydney
Charlottetown
Moncton
Eastport
Caribou
Grand Falls

Chart IX. Isobars (mb), Isotherms (°C.), and Resultant Winds for 3,000 Meters (m. s. l.) April 1945

Isobars and isotherms based on radiosonde observations 11:00 p. m. at (E. S. T.) and winds based on pilot-balloon observations at 5:00 a. m. (E. S. T.).

4 a.m.
5 a.m.
6 a.m.
7 a.m.
8 a.m.
9 a.m.
Barkerville
Edmonton
Prince Albert
The Pas
Calgary
Medicine Hat
Qu'Appelle
Winnipeg
Cochrane
Moose River
Quebec
Father Point
Chatham
Portland
Bismarck
Devils Lake
Grand Forks
Miles City
Billings
Pierre
Huron
Rapid City
Sioux City
Charles City
Green Bay
Marquette
Sault Ste. Marie
Parry Sound
Toronto
London
Sonoclidin
Burlington
Concord
Boston
Albany
Binghamton
Harrisburg
Pittsburgh
Cleveland
Scranton
New York
Atlantic City
Cape May
Cape Henry
Norfolk
Hatteras
Bermuda
Omaha
Des Moines
Chicago
La Salle
Notre Dame
Peoria
Rock Island
Davenport
Milwaukee
Madison
La Crosse
Grand Haven
Port Huron
Lansing
Saginaw
Detroit
Toledo
Buffalo
Rochester
Syracuse
Albany
Springfield
Columbus
Cincinnati
Dayton
Parkersburg
Mount Weather
Richmond
Lynchburg
Roanoke
Raleigh
Asheville
Charlotte
Columbia
Wilmington
Augusta
Charleston
Savannah
Macon
Atlanta
Anniston
Birmingham
Montgomery
Jackson
Meridian
Vicksburg
Memphis
Chattanooga
Knoxville
Nashville
Louisville
Evansville
Indianapolis
Terre Haute
Springfield
Peoria
St. Louis
Columbia
Hannibal
Kansas City
Topeka
Lincoln
Grand Island
North Platte
Denver
Cheyenne
Salt Lake City
Ogden
Pocatello
Boise
Baker
Spokane
Kalispell
Helena
Missoula
Billings
Williston
Minot
Havre
Glasgow
Swift Current
Moose Jaw
Prince Albert
Battleford
Edmonton
Prince Rupert
Vancouver
Seattle
Portland
Roseburg
Medford
Klamath Falls
Eugene
Salem
Astoria
Tatoosh Island
San Francisco
San Luis Obispo
Santa Barbara
Los Angeles
San Diego
Tonopah
Independence
Modena
Bishop
Fresno
Yuma
Phoenix
Flagstaff
Winslow
Albuquerque
Santa Fe
Tucumcari
Amarillo
Pueblo
Canon City
Leadville
Grand Junction
Roswell
El Paso
Abilene
Dallas
Fort Worth
Shreveport
Little Rock
Fort Smith
Bentonville
Oklahoma City
Tulsa
Enid
Dodge City
Goodland
Sidney
Scottsbluff
North Platte
Valentine
Rapid City
Huron
Pierre
Aberdeen
Williston
Minot
Devils Lake
Grand Forks
Bismarck
Miles City
Billings
Great Falls
Helena
Butte
Missoula
Kalispell
Spokane
Walla Walla
Pendleton
Boise
Twin Falls
Pocatello
Idaho Falls
Rock Springs
Casper
Lander
Riverton
Sheridan
Billings
Miles City
Glendive
Williston
Minot
Devils Lake
Grand Forks
Fargo
Bismarck
Mobridge
Pierre
Huron
Rapid City
Sioux City
Yankton
Norfolk
Grand Island
Omaha
Des Moines
Davenport
Rock Island
Peoria
Springfield
Columbia
Hannibal
St. Louis
Kansas City
Topeka
Lincoln
Grand Island
North Platte
Valentine
Scottsbluff
Sidney
Goodland
Dodge City
Amarillo
Tucumcari
Santa Fe
Albuquerque
Flagstaff
Winslow
Phoenix
Yuma
San Diego
Los Angeles
San Luis Obispo
Fresno
Bishop
Independence
Modena
Tonopah
Ely
Elko
Winnemucca
Reno
Carson City
Sacramento
San Francisco
Eureka
Medford
Roseburg
Eugene
Salem
Astoria
Tatoosh Island
Vancouver
Seattle
Portland

Chart X. Isobars (mb), Isotherms (°C.), and Resultant Winds for 5,000 Meters (m. s. l.) April 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 p. m. (E. S. T.).

4 a.m.
5 a.m.
6 a.m.
7 a.m.
8 a.m.
9 a.m.
Edmonton
Calgary
Medicine Hat
Prince Albert
The Pas
Winnipeg
Grand Forks
Minneapolis
Moorhead
Duluth
Marquette
Sault Ste Marie
Sudbury
North Bay
Toronto
Kingston
Ottawa
Montreal
Quebec
Gaspé
Fredericton
Moncton
Saint John
Halifax
Yarmouth
Sydney
Charlottetown
Chatham
Father Point
Anticosti
Port Arthur
White River
Miles City
Billings
Helena
Butte
Spokane
Seattle
Portland
Walla Walla
Pendleton
Boise
Pocatello
Salt Lake City
Grand Junction
Denver
North Platte
Omaha
Lincoln
Concordia
St Joseph
Kansas City
Topeka
Wichita
Dodge City
Amarillo
Pueblo
Canon
Leadville
Cheyenne
Rapid City
Huron
Sioux Falls
St Paul
Minneapolis
La Crosse
Madison
Milwaukee
Green Bay
Marquette
Sault Ste Marie
Sudbury
North Bay

Chart XI. Isobars (mb), Isotherms (°C.), and Resultant Winds for 10,000 Meters (m. s. l.) April 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 p. m. (E. S. T.).